eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Rita Schmon-Stasik
Leidos, Inc.
Picatinny Arsenal
356 Ninth Avenue
Suite 106
Dover NJ 07801

Generated 10/18/2023 8:21 PM

JOB DESCRIPTION

RVAAP FWGW

JOB NUMBER

280-182443-1

Eurofins Denver
4955 Yarrow Street
Arvada CO 80002

See page two for job notes and contact information.

my EOL

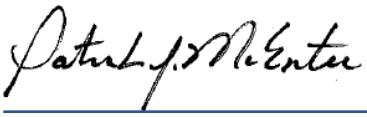
Eurofins Denver

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



Generated
10/18/2023 8:21 PM

Authorized for release by
Patrick J McEntee, Client Service Manager
Patrick.McEntee@et.eurofinsus.com
303 736-0107

Table of Contents

Cover Title Page 1

Data Summaries 5

- Definitions 5
- Case Narrative 6
- Detection Summary 8
- Client Sample Results 10
- Default Detection Limits 18
- Surrogate Summary 19
- QC Sample Results 20
- QC Association 27
- Chronicle 30
- Certification Summary 33
- Method Summary 34
- Sample Summary 35
- Manual Integration Summary 36
- Reagent Traceability 58
  - COAs 67

Organic Sample Data 344

- HPLC/IC 344
  - 8330B_DOD5 344
    - 8330B_DOD5 QC Summary 345
    - 8330B_DOD5 Sample Data 355
    - Standards Data 492
      - 8330B_DOD5 ICAL Data 492
      - 8330B_DOD5 CCAL Data 701
    - Raw QC Data 816

Table of Contents

8330B_DOD5 Blank Data 816

8330B_DOD5 LCS/LCSD Data 822

8330B_DOD5 Run Logs 838

8330B_DOD5 Prep Data 843

Inorganic Sample Data 853

General Chemistry Data 853

Gen Chem Cover Page 854

Gen Chem Sample Data 855

Gen Chem QC Data 859

Gen Chem ICV/CCV 859

Gen Chem Blanks 865

Gen Chem MS/MSD/PDS 866

Gen Chem Duplicates 868

Gen Chem LCS/LCSD 869

Gen Chem Calibration 872

Gen Chem MDL 878

Gen Chem Preparation Log 888

Gen Chem Analysis Run Log 889

Gen Chem Prep Data 906

Gen Chem Raw Data 926

Shipping and Receiving Documents 1190

Client Chain of Custody 1191

Sample Receipt Checklist 1201

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.

General Chemistry

Qualifier	Qualifier Description
J	Estimated: The analyte was positively identified; the quantitation is an estimation
J1	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
U	Undetected at the Limit of Detection.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

CASE NARRATIVE

Client: Leidos, Inc.

Project: RVAAP FWGW

Report Number: 280-182443-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 10/5/2023 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.4º C, 1.3º C and 1.7º C.

Receipt Exceptions

A revised COC was provided via email on 10/04/2023 to update a sample ID to WBGMW-RB-018-2023 (280-182443-8). The original and revied COCs are included in this report.

EXPLOSIVES (HPLC)

Samples WBGmw-020-230901-GW (280-182443-1), WBGmw-009-230901-GW (280-182443-2), WBGmw-014-230901-GW (280-182443-3), WBGmw-006-230901-GW (280-182443-4), WBGmw-016-230901-GW (280-182443-5), WBGmw-021-230901-GW (280-182443-6), WBGmw-018-230901-GW (280-182443-7), WBGMW-RB-018-2023 (280-182443-8), WBGmw-017-230901-GW (280-182443-9), FBQmw-175-230901-GW (280-182443-10) and FBQmw-175-230902-GW (280-182443-11) were analyzed for Explosives (HPLC) in accordance with 8330B. The samples were prepared on 10/11/2023 and analyzed on 10/12/2023 and 10/13/2023.

MNX was detected in method blank MB 280-629324/1-A at a level that was below one half the LOQ.

Surrogate recovery for the following sample in preparation batch 280-629324 and analytical batch 280-629680 was outside the control limit in the confirmation instrument: WBGmw-006-230901-GW (280-182443-4) and WBGMW-RB-018-2023 (280-182443-8). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. Surrogate recovered within control limit in the primary instrument.

The %RPD between the primary and confirmation column exceeded 40% for TNX and RDX for the following sample: WBGMW-RB-018-2023 (280-182443-8) in preparation batch 280-629324 and analytical batch 280-629481. The results from both columns has been qualified and reported in accordance with the laboratory's QAS.

In preparation batch 280-629324, the following samples required filtration to reduce matrix interferences: WBGmw-020-230901-GW (280-182443-1) and WBGmw-021-230901-GW (280-182443-6).

In preparation batch 280-629324, the following samples: WBGmw-009-230901-GW (280-182443-2), WBGmw-014-230901-GW (280-182443-3), WBGmw-016-230901-GW (280-182443-5), WBGmw-018-230901-GW (280-182443-7) and WBGmw-017-230901-GW (280-182443-9) was decanted prior to preparation as sample bottles contained insufficient headspace for the addition of sodium chloride.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ALKALINITY

Samples WBGmw-009-230901-GW (280-182443-2), WBGmw-006-230901-GW (280-182443-4), WBGmw-018-230901-GW (280-182443-7) and WBGMW-RB-018-2023 (280-182443-8) were analyzed for Alkalinity in accordance with SM20 2320B. The samples were analyzed on 10/10/2023.

Alkalinity was detected in method blank MB 280-629347/5 at a level that was below one half the LOQ.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SULFIDE

Samples WBGmw-009-230901-GW (280-182443-2), WBGmw-006-230901-GW (280-182443-4), WBGmw-018-230901-GW (280-182443-7) and WBGMW-RB-018-2023 (280-182443-8) were analyzed for sulfide in accordance with EPA SW-846 9034. The samples were prepared and analyzed on 10/11/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS, ION CHROMATOGRAPHY

Samples WBGmw-009-230901-GW (280-182443-2), WBGmw-006-230901-GW (280-182443-4), WBGmw-018-230901-GW (280-182443-7) and WBGMW-RB-018-2023 (280-182443-8) were analyzed for Anions, Ion Chromatography in accordance with 9056A (48 Hours). The samples were analyzed on 10/05/2023 and 10/06/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

ANIONS (28 DAYS)

Samples WBGmw-009-230901-GW (280-182443-2), WBGmw-006-230901-GW (280-182443-4), WBGmw-018-230901-GW (280-182443-7) and WBGMW-RB-018-2023 (280-182443-8) were analyzed for anions (28 days) in accordance with 9056A (28 Days). The samples were analyzed on 10/05/2023 and 10/06/2023.

Sulfate failed the recovery criteria high for the MS of sample WBGmw-009-230901-GWMS (280-182443-2) in batch 280-628613. Sulfate failed the recovery criteria high for the MSD of sample WBGmw-009-230901-GWMSD (280-182443-2) in batch 280-628613.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

TOTAL ORGANIC CARBON

Samples WBGmw-009-230901-GW (280-182443-2), WBGmw-006-230901-GW (280-182443-4), WBGmw-018-230901-GW (280-182443-7) and WBGMW-RB-018-2023 (280-182443-8) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 10/14/2023.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-182443-1

Client Sample ID: WBGmw-020-230901-GW — Lab Sample ID: 280-182443-1

No Detections.

Client Sample ID: WBGmw-009-230901-GW — Lab Sample ID: 280-182443-2

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
HMX	1.6	M	0.22	0.21	0.090	ug/L	1		8330B	Total/NA
MNX	0.21	J M	0.52	0.30	0.096	ug/L	1		8330B	Total/NA
RDX	3.2	M	0.22	0.21	0.053	ug/L	1		8330B	Total/NA
Nitrate as N	0.091	J	0.50	0.20	0.090	mg/L	1		9056	Total/NA
Sulfate	22	J1	5.0	2.5	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Average	0.91	J	1.0	0.80	0.35	mg/L	1		9060	Total/NA
Alkalinity	340		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA

Client Sample ID: WBGmw-014-230901-GW — Lab Sample ID: 280-182443-3

No Detections.

Client Sample ID: WBGmw-006-230901-GW — Lab Sample ID: 280-182443-4

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
HMX	3.2	M	0.22	0.21	0.092	ug/L	1		8330B	Total/NA
MNX	0.37	J M	0.52	0.30	0.097	ug/L	1		8330B	Total/NA
RDX	6.6	M	0.22	0.21	0.054	ug/L	1		8330B	Total/NA
Sulfate	27		5.0	2.5	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Average	1.1		1.0	0.80	0.35	mg/L	1		9060	Total/NA
Alkalinity	280		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA

Client Sample ID: WBGmw-016-230901-GW — Lab Sample ID: 280-182443-5

No Detections.

Client Sample ID: WBGmw-021-230901-GW — Lab Sample ID: 280-182443-6

No Detections.

Client Sample ID: WBGmw-018-230901-GW — Lab Sample ID: 280-182443-7

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
HMX	0.11	J M	0.21	0.20	0.089	ug/L	1		8330B	Total/NA
RDX	0.17	J M	0.21	0.20	0.052	ug/L	1		8330B	Total/NA
Nitrate as N	0.43	J	0.50	0.20	0.090	mg/L	1		9056	Total/NA
Sulfate	12		5.0	2.5	1.0	mg/L	1		9056A	Total/NA
Total Organic Carbon - Average	1.3		1.0	0.80	0.35	mg/L	1		9060	Total/NA
Alkalinity	50		10	6.4	3.1	mg/L	1		SM 2320B	Total/NA

Client Sample ID: WBGMW-RB-018-2023 — Lab Sample ID: 280-182443-8

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	Dil Fac	D	Method	Prep Type
RDX	0.79	J1	0.22	0.21	0.053	ug/L	1		8330B	Total/NA
RDX	3.3	Q J1	0.22	0.21	0.053	ug/L	1		8330B	Total/NA
TNX	0.13	J J1	0.51	0.26	0.081	ug/L	1		8330B	Total/NA
TNX	1.2	Q J1	0.51	0.26	0.081	ug/L	1		8330B	Total/NA
Total Organic Carbon - Average	1.0		1.0	0.80	0.35	mg/L	1		9060	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-182443-1

Client Sample ID: WBGmw-017-230901-GW — Lab Sample ID: 280-182443-9

No Detections.

Client Sample ID: FBQmw-175-230901-GW — Lab Sample ID: 280-182443-10

No Detections.

Client Sample ID: FBQmw-175-230902-GW — Lab Sample ID: 280-182443-11

No Detections.

This Detection Summary does not include radiochemical test results.

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Client Sample ID: WBGmw-020-230901-GW
Date Collected: 10/04/23 09:57
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-1
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087	ug/L		10/12/23 16:00	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038	ug/L		10/12/23 16:00	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		10/12/23 16:00	1
2,4-diamino-6-nitrotoluene	0.93	U	1.0	0.93	0.45	ug/L		10/12/23 16:00	1
2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028	ug/L		10/12/23 16:00	1
2,6-diamino-4-nitrotoluene	0.93	U	1.0	0.93	0.23	ug/L		10/12/23 16:00	1
2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041	ug/L		10/12/23 16:00	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		10/12/23 16:00	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.088	ug/L		10/12/23 16:00	1
3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14	ug/L		10/12/23 16:00	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/12/23 16:00	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059	ug/L		10/12/23 16:00	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		10/12/23 16:00	1
DNX	0.26	U	0.51	0.26	0.10	ug/L		10/12/23 16:00	1
HMX	0.21	U	0.22	0.21	0.090	ug/L		10/12/23 16:00	1
MNX	0.30	U M	0.51	0.30	0.095	ug/L		10/12/23 16:00	1
Nitrobenzene	0.21	U	0.22	0.21	0.094	ug/L		10/12/23 16:00	1
Nitroglycerin	2.1	U	2.2	2.1	0.95	ug/L		10/12/23 16:00	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/12/23 16:00	1
RDX	0.21	U	0.22	0.21	0.053	ug/L		10/12/23 16:00	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/12/23 16:00	1
TNX	0.26	U M	0.51	0.26	0.081	ug/L		10/12/23 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*99*		*83 - 119*	*10/11/23 13:57*	*10/12/23 16:00*	*1*

Client Sample ID: WBGmw-009-230901-GW
Date Collected: 10/04/23 10:00
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087	ug/L		10/12/23 16:23	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		10/12/23 16:23	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		10/12/23 16:23	1
2,4-diamino-6-nitrotoluene	0.93	U	1.0	0.93	0.45	ug/L		10/12/23 16:23	1
2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028	ug/L		10/12/23 16:23	1
2,6-diamino-4-nitrotoluene	0.93	U M	1.0	0.93	0.23	ug/L		10/12/23 16:23	1
2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.041	ug/L		10/12/23 16:23	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		10/12/23 16:23	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.088	ug/L		10/12/23 16:23	1
3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14	ug/L		10/12/23 16:23	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/12/23 16:23	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.060	ug/L		10/12/23 16:23	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		10/12/23 16:23	1
DNX	0.26	U	0.52	0.26	0.10	ug/L		10/12/23 16:23	1
HMX	**1.6**	**M**	0.22	0.21	0.090	ug/L		10/12/23 16:23	1
MNX	**0.21**	**J M**	0.52	0.30	0.096	ug/L		10/12/23 16:23	1
Nitrobenzene	0.21	U	0.22	0.21	0.094	ug/L		10/12/23 16:23	1
Nitroglycerin	2.1	U	2.2	2.1	0.95	ug/L		10/12/23 16:23	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/12/23 16:23	1
RDX	**3.2**	**M**	0.22	0.21	0.053	ug/L		10/12/23 16:23	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Client Sample ID: WBGmw-009-230901-GW
Date Collected: 10/04/23 10:00
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/12/23 16:23	1
TNX	0.26	U	0.52	0.26	0.082	ug/L		10/12/23 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*100*	*M*	*83 - 119*	*10/11/23 13:57*	*10/12/23 16:23*	*1*
1,2-Dinitrobenzene	*93*		*83 - 119*	*10/11/23 13:57*	*10/13/23 20:13*	*1*

Client Sample ID: WBGmw-014-230901-GW
Date Collected: 10/04/23 10:25
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-3
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087	ug/L		10/12/23 16:46	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		10/12/23 16:46	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		10/12/23 16:46	1
2,4-diamino-6-nitrotoluene	0.93	U	1.0	0.93	0.45	ug/L		10/12/23 16:46	1
2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028	ug/L		10/12/23 16:46	1
2,6-diamino-4-nitrotoluene	0.93	U	1.0	0.93	0.23	ug/L		10/12/23 16:46	1
2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041	ug/L		10/12/23 16:46	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		10/12/23 16:46	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.088	ug/L		10/12/23 16:46	1
3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14	ug/L		10/12/23 16:46	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/12/23 16:46	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059	ug/L		10/12/23 16:46	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		10/12/23 16:46	1
DNX	0.26	U	0.52	0.26	0.10	ug/L		10/12/23 16:46	1
HMX	0.21	U	0.22	0.21	0.090	ug/L		10/12/23 16:46	1
MNX	0.30	U	0.52	0.30	0.096	ug/L		10/12/23 16:46	1
Nitrobenzene	0.21	U	0.22	0.21	0.094	ug/L		10/12/23 16:46	1
Nitroglycerin	2.1	U	2.2	2.1	0.95	ug/L		10/12/23 16:46	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/12/23 16:46	1
RDX	0.21	U	0.22	0.21	0.053	ug/L		10/12/23 16:46	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/12/23 16:46	1
TNX	0.26	U M	0.52	0.26	0.082	ug/L		10/12/23 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*100*		*83 - 119*	*10/11/23 13:57*	*10/12/23 16:46*	*1*

Client Sample ID: WBGmw-006-230901-GW
Date Collected: 10/04/23 11:20
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-4
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088	ug/L		10/12/23 17:09	1
1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.039	ug/L		10/12/23 17:09	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047	ug/L		10/12/23 17:09	1
2,4-diamino-6-nitrotoluene	0.94	U	1.0	0.94	0.45	ug/L		10/12/23 17:09	1
2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029	ug/L		10/12/23 17:09	1
2,6-diamino-4-nitrotoluene	0.94	U M	1.0	0.94	0.23	ug/L		10/12/23 17:09	1
2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042	ug/L		10/12/23 17:09	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053	ug/L		10/12/23 17:09	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.089	ug/L		10/12/23 17:09	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Client Sample ID: WBGmw-006-230901-GW
Date Collected: 10/04/23 11:20
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-4
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
3,5-Dinitroaniline	0.31	U	0.42	0.31	0.14	ug/L		10/12/23 17:09	1
3-Nitrotoluene	0.37	U	0.42	0.37	0.20	ug/L		10/12/23 17:09	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060	ug/L		10/12/23 17:09	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.10	ug/L		10/12/23 17:09	1
DNX	0.26	U	0.52	0.26	0.10	ug/L		10/12/23 17:09	1
HMX	**3.2**	**M**	0.22	0.21	0.092	ug/L		10/12/23 17:09	1
MNX	**0.37**	**J M**	0.52	0.30	0.097	ug/L		10/12/23 17:09	1
Nitrobenzene	0.21	U	0.22	0.21	0.095	ug/L		10/12/23 17:09	1
Nitroglycerin	2.1	U	2.2	2.1	0.96	ug/L		10/12/23 17:09	1
PETN	1.0	U	1.1	1.0	0.47	ug/L		10/12/23 17:09	1
RDX	**6.6**	**M**	0.22	0.21	0.054	ug/L		10/12/23 17:09	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/12/23 17:09	1
TNX	0.26	U	0.52	0.26	0.083	ug/L		10/12/23 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*88*	*M*	*83 - 119*	*10/11/23 13:57*	*10/12/23 17:09*	*1*
1,2-Dinitrobenzene	*80*	*Q*	*83 - 119*	*10/11/23 13:57*	*10/13/23 20:48*	*1*

Client Sample ID: WBGmw-016-230901-GW
Date Collected: 10/04/23 11:25
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-5
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.086	ug/L		10/12/23 17:32	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		10/12/23 17:32	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		10/12/23 17:32	1
2,4-diamino-6-nitrotoluene	0.92	U	1.0	0.92	0.44	ug/L		10/12/23 17:32	1
2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028	ug/L		10/12/23 17:32	1
2,6-diamino-4-nitrotoluene	0.92	U	1.0	0.92	0.23	ug/L		10/12/23 17:32	1
2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041	ug/L		10/12/23 17:32	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		10/12/23 17:32	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.087	ug/L		10/12/23 17:32	1
3,5-Dinitroaniline	0.31	U	0.41	0.31	0.13	ug/L		10/12/23 17:32	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/12/23 17:32	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059	ug/L		10/12/23 17:32	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		10/12/23 17:32	1
DNX	0.26	U	0.51	0.26	0.099	ug/L		10/12/23 17:32	1
HMX	0.20	U	0.21	0.20	0.089	ug/L		10/12/23 17:32	1
MNX	0.30	U	0.51	0.30	0.095	ug/L		10/12/23 17:32	1
Nitrobenzene	0.20	U	0.21	0.20	0.093	ug/L		10/12/23 17:32	1
Nitroglycerin	2.0	U	2.1	2.0	0.94	ug/L		10/12/23 17:32	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/12/23 17:32	1
RDX	0.20	U	0.21	0.20	0.053	ug/L		10/12/23 17:32	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		10/12/23 17:32	1
TNX	0.26	U M	0.51	0.26	0.081	ug/L		10/12/23 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*102*	*M*	*83 - 119*	*10/11/23 13:57*	*10/12/23 17:32*	*1*

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Client Sample ID: WBGmw-021-230901-GW
Date Collected: 10/04/23 12:40
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-6
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087	ug/L		10/12/23 18:41	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		10/12/23 18:41	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047	ug/L		10/12/23 18:41	1
2,4-diamino-6-nitrotoluene	0.94	U	1.0	0.94	0.45	ug/L		10/12/23 18:41	1
2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028	ug/L		10/12/23 18:41	1
2,6-diamino-4-nitrotoluene	0.94	U	1.0	0.94	0.23	ug/L		10/12/23 18:41	1
2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042	ug/L		10/12/23 18:41	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053	ug/L		10/12/23 18:41	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.089	ug/L		10/12/23 18:41	1
3,5-Dinitroaniline	0.31	U	0.42	0.31	0.14	ug/L		10/12/23 18:41	1
3-Nitrotoluene	0.36	U	0.42	0.36	0.20	ug/L		10/12/23 18:41	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.16	0.12	0.060	ug/L		10/12/23 18:41	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.10	ug/L		10/12/23 18:41	1
DNX	0.26	U	0.52	0.26	0.10	ug/L		10/12/23 18:41	1
HMX	0.21	U M	0.22	0.21	0.091	ug/L		10/12/23 18:41	1
MNX	0.30	U	0.52	0.30	0.096	ug/L		10/13/23 21:23	1
Nitrobenzene	0.21	U	0.22	0.21	0.095	ug/L		10/12/23 18:41	1
Nitroglycerin	2.1	U	2.2	2.1	0.96	ug/L		10/12/23 18:41	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/12/23 18:41	1
RDX	0.21	U	0.22	0.21	0.054	ug/L		10/12/23 18:41	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/12/23 18:41	1
TNX	0.26	U	0.52	0.26	0.082	ug/L		10/12/23 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*93*	*M*	*83 - 119*	*10/11/23 13:57*	*10/12/23 18:41*	*1*
1,2-Dinitrobenzene	*84*		*83 - 119*	*10/11/23 13:57*	*10/13/23 21:23*	*1*

Client Sample ID: WBGmw-018-230901-GW
Date Collected: 10/04/23 14:30
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-7
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.085	ug/L		10/12/23 19:04	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		10/12/23 19:04	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		10/12/23 19:04	1
2,4-diamino-6-nitrotoluene	0.91	U	1.0	0.91	0.44	ug/L		10/12/23 19:04	1
2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028	ug/L		10/12/23 19:04	1
2,6-diamino-4-nitrotoluene	0.91	U	1.0	0.91	0.22	ug/L		10/12/23 19:04	1
2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041	ug/L		10/12/23 19:04	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		10/12/23 19:04	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.087	ug/L		10/12/23 19:04	1
3,5-Dinitroaniline	0.30	U	0.41	0.30	0.13	ug/L		10/12/23 19:04	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/12/23 19:04	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059	ug/L		10/12/23 19:04	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		10/12/23 19:04	1
DNX	0.25	U	0.51	0.25	0.099	ug/L		10/12/23 19:04	1
HMX	**0.11**	**J M**	0.21	0.20	0.089	ug/L		10/12/23 19:04	1
MNX	0.29	U	0.51	0.29	0.094	ug/L		10/12/23 19:04	1
Nitrobenzene	0.20	U	0.21	0.20	0.092	ug/L		10/12/23 19:04	1
Nitroglycerin	2.0	U	2.1	2.0	0.94	ug/L		10/12/23 19:04	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		10/12/23 19:04	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Client Sample ID: WBGmw-018-230901-GW
Date Collected: 10/04/23 14:30
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-7
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
RDX	**0.17**	**J M**	0.21	0.20	0.052	ug/L		10/12/23 19:04	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		10/12/23 19:04	1
TNX	0.25	U	0.51	0.25	0.080	ug/L		10/12/23 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*96*	*M*	*83 - 119*	*10/11/23 13:57*	*10/12/23 19:04*	*1*
1,2-Dinitrobenzene	*87*		*83 - 119*	*10/11/23 13:57*	*10/13/23 21:58*	*1*

Client Sample ID: WBGMW-RB-018-2023
Date Collected: 10/04/23 16:00
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-8
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U Q	0.22	0.21	0.086	ug/L		10/13/23 22:33	1
1,3-Dinitrobenzene	0.10	U Q	0.11	0.10	0.038	ug/L		10/13/23 22:33	1
2,4,6-Trinitrotoluene	0.10	U Q	0.11	0.10	0.046	ug/L		10/13/23 22:33	1
2,4-diamino-6-nitrotoluene	0.92	U M	1.0	0.92	0.45	ug/L		10/12/23 19:27	1
2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028	ug/L		10/12/23 19:27	1
2,6-diamino-4-nitrotoluene	0.92	U	1.0	0.92	0.23	ug/L		10/12/23 19:27	1
2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041	ug/L		10/12/23 19:27	1
2-Amino-4,6-dinitrotoluene	0.10	U M	0.11	0.10	0.052	ug/L		10/12/23 19:27	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.088	ug/L		10/12/23 19:27	1
3,5-Dinitroaniline	0.31	U	0.41	0.31	0.13	ug/L		10/12/23 19:27	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/12/23 19:27	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059	ug/L		10/12/23 19:27	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		10/12/23 19:27	1
DNX	0.26	U M	0.51	0.26	0.10	ug/L		10/12/23 19:27	1
HMX	0.21	U	0.22	0.21	0.090	ug/L		10/12/23 19:27	1
MNX	0.30	U M	0.51	0.30	0.095	ug/L		10/12/23 19:27	1
Nitrobenzene	0.21	U M	0.22	0.21	0.093	ug/L		10/12/23 19:27	1
Nitroglycerin	2.1	U M	2.2	2.1	0.94	ug/L		10/12/23 19:27	1
PETN	1.0	U M	1.1	1.0	0.46	ug/L		10/12/23 19:27	1
RDX	**0.79**	**J1**	0.22	0.21	0.053	ug/L		10/12/23 19:27	1
RDX	**3.3**	**Q J1**	0.22	0.21	0.053	ug/L		10/13/23 22:33	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/12/23 19:27	1
TNX	**0.13**	**J J1**	0.51	0.26	0.081	ug/L		10/12/23 19:27	1
TNX	**1.2**	**Q J1**	0.51	0.26	0.081	ug/L		10/13/23 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*116*		*83 - 119*	*10/11/23 13:57*	*10/12/23 19:27*	*1*
1,2-Dinitrobenzene	*142*	*Q*	*83 - 119*	*10/11/23 13:57*	*10/13/23 22:33*	*1*

Client Sample ID: WBGmw-017-230901-GW
Date Collected: 10/04/23 16:00
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-9
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.086	ug/L		10/12/23 19:50	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		10/12/23 19:50	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046	ug/L		10/12/23 19:50	1
2,4-diamino-6-nitrotoluene	0.92	U	1.0	0.92	0.45	ug/L		10/12/23 19:50	1
2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028	ug/L		10/12/23 19:50	1

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Client Sample ID: WBGmw-017-230901-GW
Date Collected: 10/04/23 16:00
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-9
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
2,6-diamino-4-nitrotoluene	0.92	U	1.0	0.92	0.23	ug/L		10/12/23 19:50	1
2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041	ug/L		10/12/23 19:50	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052	ug/L		10/12/23 19:50	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.088	ug/L		10/12/23 19:50	1
3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14	ug/L		10/12/23 19:50	1
3-Nitrotoluene	0.36	U	0.41	0.36	0.20	ug/L		10/12/23 19:50	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059	ug/L		10/12/23 19:50	1
4-Nitrotoluene	0.41	U	0.42	0.41	0.10	ug/L		10/12/23 19:50	1
DNX	0.26	U	0.51	0.26	0.10	ug/L		10/12/23 19:50	1
HMX	0.21	U M	0.22	0.21	0.090	ug/L		10/12/23 19:50	1
MNX	0.30	U	0.51	0.30	0.095	ug/L		10/12/23 19:50	1
Nitrobenzene	0.21	U	0.22	0.21	0.093	ug/L		10/12/23 19:50	1
Nitroglycerin	2.1	U	2.2	2.1	0.95	ug/L		10/12/23 19:50	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/12/23 19:50	1
RDX	0.21	U	0.22	0.21	0.053	ug/L		10/12/23 19:50	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/12/23 19:50	1
TNX	0.26	U	0.51	0.26	0.081	ug/L		10/12/23 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*99*	*M*	*83 - 119*	*10/11/23 13:57*	*10/12/23 19:50*	*1*

Client Sample ID: FBQmw-175-230901-GW
Date Collected: 10/04/23 15:25
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-10
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.091	ug/L		10/12/23 20:13	1
1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.040	ug/L		10/12/23 20:13	1
2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048	ug/L		10/12/23 20:13	1
2,4-diamino-6-nitrotoluene	0.97	U	1.1	0.97	0.47	ug/L		10/12/23 20:13	1
2,4-Dinitrotoluene	0.086	U	0.11	0.086	0.030	ug/L		10/12/23 20:13	1
2,6-diamino-4-nitrotoluene	0.97	U M	1.1	0.97	0.24	ug/L		10/12/23 20:13	1
2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043	ug/L		10/12/23 20:13	1
2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055	ug/L		10/12/23 20:13	1
2-Nitrotoluene	0.22	U	0.23	0.22	0.092	ug/L		10/12/23 20:13	1
3,5-Dinitroaniline	0.32	U	0.43	0.32	0.14	ug/L		10/12/23 20:13	1
3-Nitrotoluene	0.38	U	0.43	0.38	0.21	ug/L		10/12/23 20:13	1
4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062	ug/L		10/12/23 20:13	1
4-Nitrotoluene	0.43	U	0.44	0.43	0.11	ug/L		10/12/23 20:13	1
DNX	0.27	U	0.54	0.27	0.10	ug/L		10/12/23 20:13	1
HMX	0.22	U	0.23	0.22	0.094	ug/L		10/12/23 20:13	1
MNX	0.31	U	0.54	0.31	0.10	ug/L		10/12/23 20:13	1
Nitrobenzene	0.22	U	0.23	0.22	0.098	ug/L		10/12/23 20:13	1
Nitroglycerin	2.2	U	2.3	2.2	0.99	ug/L		10/12/23 20:13	1
PETN	1.1	U	1.2	1.1	0.48	ug/L		10/12/23 20:13	1
RDX	0.22	U M	0.23	0.22	0.055	ug/L		10/12/23 20:13	1
Tetryl	0.11	U	0.12	0.11	0.034	ug/L		10/12/23 20:13	1
TNX	0.27	U	0.54	0.27	0.085	ug/L		10/12/23 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*92*	*M*	*83 - 119*	*10/11/23 13:57*	*10/12/23 20:13*	*1*

Method: EPA 8330B - Nitroaromatics and Nitramines (HPLC)

Client Sample ID: FBQmw-175-230902-GW
Date Collected: 10/04/23 15:25
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-11
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087	ug/L		10/12/23 20:36	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038	ug/L		10/12/23 20:36	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047	ug/L		10/12/23 20:36	1
2,4-diamino-6-nitrotoluene	0.93	U	1.0	0.93	0.45	ug/L		10/12/23 20:36	1
2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028	ug/L		10/12/23 20:36	1
2,6-diamino-4-nitrotoluene	0.93	U M	1.0	0.93	0.23	ug/L		10/12/23 20:36	1
2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042	ug/L		10/12/23 20:36	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053	ug/L		10/12/23 20:36	1
2-Nitrotoluene	0.21	U	0.22	0.21	0.089	ug/L		10/12/23 20:36	1
3,5-Dinitroaniline	0.31	U	0.42	0.31	0.14	ug/L		10/12/23 20:36	1
3-Nitrotoluene	0.36	U	0.42	0.36	0.20	ug/L		10/12/23 20:36	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.16	0.12	0.060	ug/L		10/12/23 20:36	1
4-Nitrotoluene	0.42	U	0.43	0.42	0.10	ug/L		10/12/23 20:36	1
DNX	0.26	U	0.52	0.26	0.10	ug/L		10/12/23 20:36	1
HMX	0.21	U	0.22	0.21	0.091	ug/L		10/12/23 20:36	1
MNX	0.30	U	0.52	0.30	0.096	ug/L		10/12/23 20:36	1
Nitrobenzene	0.21	U	0.22	0.21	0.094	ug/L		10/12/23 20:36	1
Nitroglycerin	2.1	U	2.2	2.1	0.96	ug/L		10/12/23 20:36	1
PETN	1.0	U	1.1	1.0	0.46	ug/L		10/12/23 20:36	1
RDX	0.21	U M	0.22	0.21	0.053	ug/L		10/12/23 20:36	1
Tetryl	0.10	U	0.11	0.10	0.033	ug/L		10/12/23 20:36	1
TNX	0.26	U	0.52	0.26	0.082	ug/L		10/12/23 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*97*	*M*	*83 - 119*	*10/11/23 13:57*	*10/12/23 20:36*	*1*

General Chemistry

Client Sample ID: WBGmw-009-230901-GW
Date Collected: 10/04/23 10:00
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-2
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N (SW846 9056)	**0.091**	**J**	0.50	0.20	0.090	mg/L		10/05/23 14:46	1
Nitrite as N (SW846 9056)	0.10	U	0.50	0.10	0.049	mg/L		10/05/23 14:46	1
Sulfate (SW846 9056A)	**22**	**J1**	5.0	2.5	1.0	mg/L		10/05/23 14:46	1
Total Organic Carbon - Average (SW846 9060)	**0.91**	**J**	1.0	0.80	0.35	mg/L		10/14/23 07:27	1
Sulfide (SW846 EPA 9034)	2.0	U	4.0	2.0	1.6	mg/L		10/11/23 14:56	1
Alkalinity (SM 2320B)	**340**		10	6.4	3.1	mg/L		10/10/23 01:47	1

Client Sample ID: WBGmw-006-230901-GW
Date Collected: 10/04/23 11:20
Date Received: 10/05/23 10:00

Lab Sample ID: 280-182443-4
Matrix: Water

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N (SW846 9056)	0.20	U	0.50	0.20	0.090	mg/L		10/05/23 16:16	1
Nitrite as N (SW846 9056)	0.10	U	0.50	0.10	0.049	mg/L		10/05/23 16:16	1
Sulfate (SW846 9056A)	**27**		5.0	2.5	1.0	mg/L		10/05/23 16:16	1
Total Organic Carbon - Average (SW846 9060)	**1.1**		1.0	0.80	0.35	mg/L		10/14/23 07:45	1
Sulfide (SW846 EPA 9034)	2.0	U	4.0	2.0	1.6	mg/L		10/11/23 14:56	1
Alkalinity (SM 2320B)	**280**		10	6.4	3.1	mg/L		10/10/23 01:54	1

General Chemistry

Client Sample ID: WBGmw-018-230901-GW
Lab Sample ID: 280-182443-7
Date Collected: 10/04/23 14:30
Matrix: Water
Date Received: 10/05/23 10:00

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N (SW846 9056)	**0.43**	**J**	0.50	0.20	0.090	mg/L		10/06/23 00:47	1
Nitrite as N (SW846 9056)	0.10	U	0.50	0.10	0.049	mg/L		10/06/23 00:47	1
Sulfate (SW846 9056A)	**12**		5.0	2.5	1.0	mg/L		10/06/23 00:47	1
Total Organic Carbon - Average (SW846 9060)	**1.3**		1.0	0.80	0.35	mg/L		10/14/23 08:04	1
Sulfide (SW846 EPA 9034)	2.0	U	4.0	2.0	1.6	mg/L		10/11/23 14:56	1
Alkalinity (SM 2320B)	**50**		10	6.4	3.1	mg/L		10/10/23 02:12	1

Client Sample ID: WBGMW-RB-018-2023
Lab Sample ID: 280-182443-8
Date Collected: 10/04/23 16:00
Matrix: Water
Date Received: 10/05/23 10:00

Analyte	Result	Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N (SW846 9056)	0.20	U	0.50	0.20	0.090	mg/L		10/06/23 01:47	1
Nitrite as N (SW846 9056)	0.10	U	0.50	0.10	0.049	mg/L		10/06/23 01:47	1
Sulfate (SW846 9056A)	2.5	U	5.0	2.5	1.0	mg/L		10/06/23 01:47	1
Total Organic Carbon - Average (SW846 9060)	**1.0**		1.0	0.80	0.35	mg/L		10/14/23 23:27	1
Sulfide (SW846 EPA 9034)	2.0	U	4.0	2.0	1.6	mg/L		10/11/23 14:56	1
Alkalinity (SM 2320B)	6.4	U	10	6.4	3.1	mg/L		10/10/23 02:17	1

Default Detection Limits

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-182443-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Prep: 3535

Analyte	LOQ	DL	Units
1,3,5-Trinitrobenzene	0.21	0.084	ug/L
1,3-Dinitrobenzene	0.11	0.037	ug/L
2,4,6-Trinitrotoluene	0.11	0.045	ug/L
2,4-diamino-6-nitrotoluene	1.0	0.43	ug/L
2,4-Dinitrotoluene	0.10	0.027	ug/L
2,6-diamino-4-nitrotoluene	1.0	0.22	ug/L
2,6-Dinitrotoluene	0.10	0.040	ug/L
2-Amino-4,6-dinitrotoluene	0.11	0.051	ug/L
2-Nitrotoluene	0.21	0.086	ug/L
3,5-Dinitroaniline	0.40	0.13	ug/L
3-Nitrotoluene	0.40	0.20	ug/L
4-Amino-2,6-dinitrotoluene	0.15	0.058	ug/L
4-Nitrotoluene	0.41	0.10	ug/L
DNX	0.50	0.097	ug/L
HMX	0.21	0.088	ug/L
MNX	0.50	0.093	ug/L
Nitrobenzene	0.21	0.091	ug/L
Nitroglycerin	2.1	0.92	ug/L
PETN	1.1	0.45	ug/L
RDX	0.21	0.052	ug/L
Tetryl	0.11	0.032	ug/L
TNX	0.50	0.079	ug/L

General Chemistry

Analyte	LOQ	DL	Units
Nitrate as N	0.50	0.090	mg/L
Nitrite as N	0.50	0.049	mg/L
Sulfate	5.0	1.0	mg/L
Total Organic Carbon - Average	1.0	0.35	mg/L
Alkalinity	10	3.1	mg/L

General Chemistry

Prep: 9030B

Analyte	LOQ	DL	Units
Sulfide	4.0	1.6	mg/L

Surrogate Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-182443-1

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	12DNB1 (83-119)							
280-182443-1	WBGmw-020-230901-GW	99							
280-182443-2	WBGmw-009-230901-GW	100 M							
280-182443-3	WBGmw-014-230901-GW	100							
280-182443-4	WBGmw-006-230901-GW	88 M							
280-182443-5	WBGmw-016-230901-GW	102 M							
280-182443-6	WBGmw-021-230901-GW	93 M							
280-182443-7	WBGmw-018-230901-GW	96 M							
280-182443-8	WBGMW-RB-018-2023	116							
280-182443-9	WBGmw-017-230901-GW	99 M							
280-182443-10	FBQmw-175-230901-GW	92 M							
280-182443-11	FBQmw-175-230902-GW	97 M							
LCS 280-629324/2-A	Lab Control Sample	96							
LCS 280-629324/4-A	Lab Control Sample	104							
LCSD 280-629324/3-A	Lab Control Sample Dup	95							
LCSD 280-629324/5-A	Lab Control Sample Dup	105							
MB 280-629324/1-A	Method Blank	99							

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	12DNB2 (83-119)							
280-182443-2	WBGmw-009-230901-GW	93							
280-182443-4	WBGmw-006-230901-GW	80 Q							
280-182443-6	WBGmw-021-230901-GW	84							
280-182443-7	WBGmw-018-230901-GW	87							
280-182443-8	WBGMW-RB-018-2023	142 Q							

Surrogate Legend

12DNB = 1,2-Dinitrobenzene

Method: 8330B - Nitroaromatics and Nitramines (HPLC)

Lab Sample ID: MB 280-629324/1-A
Matrix: Water
Analysis Batch: 629481

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629324

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084	ug/L		10/12/23 14:06	1
1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037	ug/L		10/12/23 14:06	1
2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045	ug/L		10/12/23 14:06	1
2,4-diamino-6-nitrotoluene	0.90	U	1.0	0.90	0.43	ug/L		10/12/23 14:06	1
2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027	ug/L		10/12/23 14:06	1
2,6-diamino-4-nitrotoluene	0.90	U	1.0	0.90	0.22	ug/L		10/12/23 14:06	1
2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040	ug/L		10/12/23 14:06	1
2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051	ug/L		10/12/23 14:06	1
2-Nitrotoluene	0.20	U	0.21	0.20	0.086	ug/L		10/12/23 14:06	1
3,5-Dinitroaniline	0.30	U	0.40	0.30	0.13	ug/L		10/12/23 14:06	1
3-Nitrotoluene	0.35	U	0.40	0.35	0.20	ug/L		10/12/23 14:06	1
4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058	ug/L		10/12/23 14:06	1
4-Nitrotoluene	0.40	U	0.41	0.40	0.10	ug/L		10/12/23 14:06	1
DNX	0.25	U	0.50	0.25	0.097	ug/L		10/12/23 14:06	1
HMX	0.20	U	0.21	0.20	0.088	ug/L		10/12/23 14:06	1
MNX	0.148	J	0.50	0.29	0.093	ug/L		10/12/23 14:06	1
Nitrobenzene	0.20	U	0.21	0.20	0.091	ug/L		10/12/23 14:06	1
Nitroglycerin	2.0	U	2.1	2.0	0.92	ug/L		10/12/23 14:06	1
PETN	1.0	U	1.1	1.0	0.45	ug/L		10/12/23 14:06	1
RDX	0.20	U	0.21	0.20	0.052	ug/L		10/12/23 14:06	1
Tetryl	0.10	U	0.11	0.10	0.032	ug/L		10/12/23 14:06	1
TNX	0.25	U	0.50	0.25	0.079	ug/L		10/12/23 14:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dinitrobenzene	*99*		*83 - 119*	*10/11/23 13:57*	*10/12/23 14:06*	*1*

Lab Sample ID: LCS 280-629324/2-A
Matrix: Water
Analysis Batch: 629481

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629324

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trinitrobenzene	2.00	2.08		ug/L		104	73 - 125
1,3-Dinitrobenzene	2.00	1.96		ug/L		98	78 - 120
2,4,6-Trinitrotoluene	2.00	1.89		ug/L		94	71 - 123
2,4-Dinitrotoluene	2.00	1.89		ug/L		95	78 - 120
2,6-Dinitrotoluene	2.00	1.86		ug/L		93	77 - 127
2-Amino-4,6-dinitrotoluene	2.00	1.81		ug/L		90	79 - 120
2-Nitrotoluene	2.00	1.54		ug/L		77	70 - 127
3,5-Dinitroaniline	2.00	1.70		ug/L		85	71 - 117
3-Nitrotoluene	2.00	1.61		ug/L		80	73 - 125
4-Amino-2,6-dinitrotoluene	2.00	1.64		ug/L		82	76 - 125
4-Nitrotoluene	2.00	1.50		ug/L		75	71 - 127
DNX	2.01	2.24		ug/L		112	66 - 119
HMX	2.00	2.04		ug/L		102	65 - 135
MNX	2.34	2.40		ug/L		103	57 - 132
Nitrobenzene	2.00	1.69		ug/L		85	65 - 134
Nitroglycerin	20.0	20.3		ug/L		102	74 - 127
PETN	20.0	20.6		ug/L		103	73 - 127

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCS 280-629324/2-A
Matrix: Water
Analysis Batch: 629481

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629324

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
RDX			2.00	2.00		ug/L		100	68 - 130		
Tetryl			2.00	1.96		ug/L		98	64 - 128		
TNX			2.00	2.08		ug/L		104	50 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*96*		*83 - 119*

Lab Sample ID: LCS 280-629324/4-A
Matrix: Water
Analysis Batch: 629481

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629324

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2,4-diamino-6-nitrotoluene			2.00	1.42		ug/L		71	68 - 122		
2,6-diamino-4-nitrotoluene			2.00	1.52		ug/L		76	72 - 122		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dinitrobenzene	*104*		*83 - 119*

Lab Sample ID: LCSD 280-629324/3-A
Matrix: Water
Analysis Batch: 629481

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 629324

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene			2.00	2.00		ug/L		100	73 - 125	4	20
1,3-Dinitrobenzene			2.00	2.00		ug/L		100	78 - 120	2	20
2,4,6-Trinitrotoluene			2.00	1.93		ug/L		96	71 - 123	2	20
2,4-Dinitrotoluene			2.00	1.91		ug/L		96	78 - 120	1	20
2,6-Dinitrotoluene			2.00	1.92		ug/L		96	77 - 127	3	20
2-Amino-4,6-dinitrotoluene			2.00	1.90		ug/L		95	79 - 120	5	20
2-Nitrotoluene			2.00	1.64		ug/L		82	70 - 127	6	20
3,5-Dinitroaniline			2.00	1.77		ug/L		88	71 - 117	4	20
3-Nitrotoluene			2.00	1.72		ug/L		86	73 - 125	6	20
4-Amino-2,6-dinitrotoluene			2.00	1.82		ug/L		91	76 - 125	10	20
4-Nitrotoluene			2.00	1.60		ug/L		80	71 - 127	7	20
DNX			2.01	2.24		ug/L		111	66 - 119	0	20
HMX			2.00	2.08		ug/L		104	65 - 135	1	20
MNX			2.34	2.44		ug/L		104	57 - 132	2	20
Nitrobenzene			2.00	1.77		ug/L		89	65 - 134	4	20
Nitroglycerin			20.0	19.9		ug/L		100	74 - 127	2	20
PETN			20.0	20.6		ug/L		103	73 - 127	0	20
RDX			2.00	1.98		ug/L		99	68 - 130	1	20
Tetryl			2.00	2.00		ug/L		100	64 - 128	2	20
TNX			2.00	2.08		ug/L		104	50 - 150	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*95*		*83 - 119*

Method: 8330B - Nitroaromatics and Nitramines (HPLC) (Continued)

Lab Sample ID: LCSD 280-629324/5-A
Matrix: Water
Analysis Batch: 629481

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 629324

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-diamino-6-nitrotoluene			2.00	1.58		ug/L		79	68 - 122	10	20
2,6-diamino-4-nitrotoluene			2.00	1.70		ug/L		85	72 - 122	11	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dinitrobenzene	*105*		*83 - 119*

Method: 9056 - Anions, Ion Chromatography

Lab Sample ID: MB 280-628612/39
Matrix: Water
Analysis Batch: 628612

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N	0.20	U	0.50	0.20	0.090	mg/L		10/05/23 22:47	1
Nitrite as N	0.10	U	0.50	0.10	0.049	mg/L		10/05/23 22:47	1

Lab Sample ID: MB 280-628612/6
Matrix: Water
Analysis Batch: 628612

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Nitrate as N	0.20	U	0.50	0.20	0.090	mg/L		10/05/23 13:55	1
Nitrite as N	0.10	U	0.50	0.10	0.049	mg/L		10/05/23 13:55	1

Lab Sample ID: LCS 280-628612/37
Matrix: Water
Analysis Batch: 628612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			5.00	4.72		mg/L		94	88 - 111		
Nitrite as N			5.00	5.04		mg/L		101	87 - 111		

Lab Sample ID: LCS 280-628612/4
Matrix: Water
Analysis Batch: 628612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			5.00	4.74		mg/L		95	88 - 111		
Nitrite as N			5.00	4.93		mg/L		99	87 - 111		

Lab Sample ID: LCSD 280-628612/38
Matrix: Water
Analysis Batch: 628612

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			5.00	4.72		mg/L		94	88 - 111	0	10
Nitrite as N			5.00	5.08		mg/L		102	87 - 111	1	10

Method: 9056 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 280-628612/5
Matrix: Water
Analysis Batch: 628612

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N			5.00	4.75		mg/L		95	88 - 111	0	10
Nitrite as N			5.00	4.94		mg/L		99	87 - 111	0	10

Lab Sample ID: MRL 280-628612/3
Matrix: Water
Analysis Batch: 628612

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N			0.500	0.495	J	mg/L		99	50 - 150		
Nitrite as N			0.500	0.497	J	mg/L		99	50 - 150		

Lab Sample ID: 280-182443-2 MS
Matrix: Water
Analysis Batch: 628612

Client Sample ID: WBGmw-009-230901-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrate as N	0.091	J	5.00	5.18		mg/L		102	88 - 111		
Nitrite as N	0.10	U	5.00	4.33		mg/L		87	87 - 111		

Lab Sample ID: 280-182443-2 MSD
Matrix: Water
Analysis Batch: 628612

Client Sample ID: WBGmw-009-230901-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrate as N	0.091	J	5.00	5.28		mg/L		104	88 - 111	2	10
Nitrite as N	0.10	U	5.00	4.43		mg/L		89	87 - 111	2	10

Lab Sample ID: 280-182443-2 DU
Matrix: Water
Analysis Batch: 628612

Client Sample ID: WBGmw-009-230901-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrate as N	0.091	J		0.20	U	mg/L				NC	10
Nitrite as N	0.10	U		0.10	U	mg/L				NC	10

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 280-628613/39
Matrix: Water
Analysis Batch: 628613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	2.5	U	5.0	2.5	1.0	mg/L		10/05/23 22:47	1

Lab Sample ID: MB 280-628613/6
Matrix: Water
Analysis Batch: 628613

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfate	2.5	U	5.0	2.5	1.0	mg/L		10/05/23 13:55	1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 280-628613/37
Matrix: Water
Analysis Batch: 628613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate			100	99.7		mg/L		100	87 - 112		

Lab Sample ID: LCS 280-628613/4
Matrix: Water
Analysis Batch: 628613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate			100	100		mg/L		100	87 - 112		

Lab Sample ID: LCSD 280-628613/38
Matrix: Water
Analysis Batch: 628613

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate			100	99.8		mg/L		100	87 - 112	0	10

Lab Sample ID: LCSD 280-628613/5
Matrix: Water
Analysis Batch: 628613

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate			100	100		mg/L		100	87 - 112	0	10

Lab Sample ID: MRL 280-628613/3
Matrix: Water
Analysis Batch: 628613

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate			5.00	6.49		mg/L		130	50 - 150		

Lab Sample ID: 280-182443-2 MS
Matrix: Water
Analysis Batch: 628613

Client Sample ID: WBGmw-009-230901-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Sulfate	22	J1	50.0	80.5	J1	mg/L		117	87 - 112		

Lab Sample ID: 280-182443-2 MSD
Matrix: Water
Analysis Batch: 628613

Client Sample ID: WBGmw-009-230901-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfate	22	J1	50.0	81.9	J1	mg/L		120	87 - 112	2	10

Lab Sample ID: 280-182443-2 DU
Matrix: Water
Analysis Batch: 628613

Client Sample ID: WBGmw-009-230901-GW
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	22	J1	21.8		mg/L		2	10

Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-629865/35
Matrix: Water
Analysis Batch: 629865

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon - Average	0.80	U	1.0	0.80	0.35	mg/L		10/14/23 08:45	1

Lab Sample ID: MB 280-629865/4
Matrix: Water
Analysis Batch: 629865

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Total Organic Carbon - Average	0.80	U	1.0	0.80	0.35	mg/L		10/13/23 22:34	1

Lab Sample ID: LCS 280-629865/3
Matrix: Water
Analysis Batch: 629865

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon - Average	25.0	25.7		mg/L		103	88 - 112

Lab Sample ID: LCS 280-629865/34
Matrix: Water
Analysis Batch: 629865

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Organic Carbon - Average	25.0	25.7		mg/L		103	88 - 112

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 280-629386/2-A
Matrix: Water
Analysis Batch: 629388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 629386

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Sulfide	2.0	U	4.0	2.0	1.6	mg/L		10/11/23 14:56	1

Lab Sample ID: LCS 280-629386/1-A
Matrix: Water
Analysis Batch: 629388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 629386

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	20.6	17.6		mg/L		85	44 - 110

Lab Sample ID: 280-182443-2 MS
Matrix: Water
Analysis Batch: 629388

Client Sample ID: WBGmw-009-230901-GW
Prep Type: Total/NA
Prep Batch: 629386

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	2.0	U	20.6	17.6		mg/L		85	44 - 110

Method: EPA 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: 280-182443-2 MSD
Matrix: Water
Analysis Batch: 629388

Client Sample ID: WBGmw-009-230901-GW
Prep Type: Total/NA
Prep Batch: 629386

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Sulfide	2.0	U	20.6	16.8		mg/L		81	44 - 110	5	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-629347/5
Matrix: Water
Analysis Batch: 629347

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	LOQ	LOD	DL	Unit	D	Analyzed	Dil Fac
Alkalinity	3.61	J	10	6.4	3.1	mg/L		10/10/23 00:16	1

Lab Sample ID: LCS 280-629347/4
Matrix: Water
Analysis Batch: 629347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Alkalinity			200	209		mg/L		104	89 - 110		

HPLC/IC

Prep Batch: 629324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-182443-1	WBGmw-020-230901-GW	Total/NA	Water	3535	
280-182443-2	WBGmw-009-230901-GW	Total/NA	Water	3535	
280-182443-3	WBGmw-014-230901-GW	Total/NA	Water	3535	
280-182443-4	WBGmw-006-230901-GW	Total/NA	Water	3535	
280-182443-5	WBGmw-016-230901-GW	Total/NA	Water	3535	
280-182443-6	WBGmw-021-230901-GW	Total/NA	Water	3535	
280-182443-7	WBGmw-018-230901-GW	Total/NA	Water	3535	
280-182443-8	WBGMW-RB-018-2023	Total/NA	Water	3535	
280-182443-9	WBGmw-017-230901-GW	Total/NA	Water	3535	
280-182443-10	FBQmw-175-230901-GW	Total/NA	Water	3535	
280-182443-11	FBQmw-175-230902-GW	Total/NA	Water	3535	
MB 280-629324/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-629324/2-A	Lab Control Sample	Total/NA	Water	3535	
LCS 280-629324/4-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 280-629324/3-A	Lab Control Sample Dup	Total/NA	Water	3535	
LCSD 280-629324/5-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 629481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-182443-1	WBGmw-020-230901-GW	Total/NA	Water	8330B	629324
280-182443-2	WBGmw-009-230901-GW	Total/NA	Water	8330B	629324
280-182443-3	WBGmw-014-230901-GW	Total/NA	Water	8330B	629324
280-182443-4	WBGmw-006-230901-GW	Total/NA	Water	8330B	629324
280-182443-5	WBGmw-016-230901-GW	Total/NA	Water	8330B	629324
280-182443-6	WBGmw-021-230901-GW	Total/NA	Water	8330B	629324
280-182443-7	WBGmw-018-230901-GW	Total/NA	Water	8330B	629324
280-182443-8	WBGMW-RB-018-2023	Total/NA	Water	8330B	629324
280-182443-9	WBGmw-017-230901-GW	Total/NA	Water	8330B	629324
280-182443-10	FBQmw-175-230901-GW	Total/NA	Water	8330B	629324
280-182443-11	FBQmw-175-230902-GW	Total/NA	Water	8330B	629324
MB 280-629324/1-A	Method Blank	Total/NA	Water	8330B	629324
LCS 280-629324/2-A	Lab Control Sample	Total/NA	Water	8330B	629324
LCS 280-629324/4-A	Lab Control Sample	Total/NA	Water	8330B	629324
LCSD 280-629324/3-A	Lab Control Sample Dup	Total/NA	Water	8330B	629324
LCSD 280-629324/5-A	Lab Control Sample Dup	Total/NA	Water	8330B	629324

Analysis Batch: 629680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-182443-2	WBGmw-009-230901-GW	Total/NA	Water	8330B	629324
280-182443-4	WBGmw-006-230901-GW	Total/NA	Water	8330B	629324
280-182443-6	WBGmw-021-230901-GW	Total/NA	Water	8330B	629324
280-182443-7	WBGmw-018-230901-GW	Total/NA	Water	8330B	629324
280-182443-8	WBGMW-RB-018-2023	Total/NA	Water	8330B	629324

General Chemistry

Analysis Batch: 628612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-182443-2	WBGmw-009-230901-GW	Total/NA	Water	9056	
280-182443-4	WBGmw-006-230901-GW	Total/NA	Water	9056	
280-182443-7	WBGmw-018-230901-GW	Total/NA	Water	9056	

General Chemistry (Continued)

Analysis Batch: 628612 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-182443-8	WBGMW-RB-018-2023	Total/NA	Water	9056	
MB 280-628612/39	Method Blank	Total/NA	Water	9056	
MB 280-628612/6	Method Blank	Total/NA	Water	9056	
LCS 280-628612/37	Lab Control Sample	Total/NA	Water	9056	
LCS 280-628612/4	Lab Control Sample	Total/NA	Water	9056	
LCSD 280-628612/38	Lab Control Sample Dup	Total/NA	Water	9056	
LCSD 280-628612/5	Lab Control Sample Dup	Total/NA	Water	9056	
MRL 280-628612/3	Lab Control Sample	Total/NA	Water	9056	
280-182443-2 MS	WBGmw-009-230901-GW	Total/NA	Water	9056	
280-182443-2 MSD	WBGmw-009-230901-GW	Total/NA	Water	9056	
280-182443-2 DU	WBGmw-009-230901-GW	Total/NA	Water	9056	

Analysis Batch: 628613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-182443-2	WBGmw-009-230901-GW	Total/NA	Water	9056A	
280-182443-4	WBGmw-006-230901-GW	Total/NA	Water	9056A	
280-182443-7	WBGmw-018-230901-GW	Total/NA	Water	9056A	
280-182443-8	WBGMW-RB-018-2023	Total/NA	Water	9056A	
MB 280-628613/39	Method Blank	Total/NA	Water	9056A	
MB 280-628613/6	Method Blank	Total/NA	Water	9056A	
LCS 280-628613/37	Lab Control Sample	Total/NA	Water	9056A	
LCS 280-628613/4	Lab Control Sample	Total/NA	Water	9056A	
LCSD 280-628613/38	Lab Control Sample Dup	Total/NA	Water	9056A	
LCSD 280-628613/5	Lab Control Sample Dup	Total/NA	Water	9056A	
MRL 280-628613/3	Lab Control Sample	Total/NA	Water	9056A	
280-182443-2 MS	WBGmw-009-230901-GW	Total/NA	Water	9056A	
280-182443-2 MSD	WBGmw-009-230901-GW	Total/NA	Water	9056A	
280-182443-2 DU	WBGmw-009-230901-GW	Total/NA	Water	9056A	

Analysis Batch: 629347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-182443-2	WBGmw-009-230901-GW	Total/NA	Water	SM 2320B	
280-182443-4	WBGmw-006-230901-GW	Total/NA	Water	SM 2320B	
280-182443-7	WBGmw-018-230901-GW	Total/NA	Water	SM 2320B	
280-182443-8	WBGMW-RB-018-2023	Total/NA	Water	SM 2320B	
MB 280-629347/5	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-629347/4	Lab Control Sample	Total/NA	Water	SM 2320B	

Prep Batch: 629386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-182443-2	WBGmw-009-230901-GW	Total/NA	Water	9030B	
280-182443-4	WBGmw-006-230901-GW	Total/NA	Water	9030B	
280-182443-7	WBGmw-018-230901-GW	Total/NA	Water	9030B	
280-182443-8	WBGMW-RB-018-2023	Total/NA	Water	9030B	
MB 280-629386/2-A	Method Blank	Total/NA	Water	9030B	
LCS 280-629386/1-A	Lab Control Sample	Total/NA	Water	9030B	
280-182443-2 MS	WBGmw-009-230901-GW	Total/NA	Water	9030B	
280-182443-2 MSD	WBGmw-009-230901-GW	Total/NA	Water	9030B	

QC Association Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-182443-1

General Chemistry

Analysis Batch: 629388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-182443-2	WBGmw-009-230901-GW	Total/NA	Water	EPA 9034	629386
280-182443-4	WBGmw-006-230901-GW	Total/NA	Water	EPA 9034	629386
280-182443-7	WBGmw-018-230901-GW	Total/NA	Water	EPA 9034	629386
280-182443-8	WBGMW-RB-018-2023	Total/NA	Water	EPA 9034	629386
MB 280-629386/2-A	Method Blank	Total/NA	Water	EPA 9034	629386
LCS 280-629386/1-A	Lab Control Sample	Total/NA	Water	EPA 9034	629386
280-182443-2 MS	WBGmw-009-230901-GW	Total/NA	Water	EPA 9034	629386
280-182443-2 MSD	WBGmw-009-230901-GW	Total/NA	Water	EPA 9034	629386

Analysis Batch: 629865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-182443-2	WBGmw-009-230901-GW	Total/NA	Water	9060	
280-182443-4	WBGmw-006-230901-GW	Total/NA	Water	9060	
280-182443-7	WBGmw-018-230901-GW	Total/NA	Water	9060	
280-182443-8	WBGMW-RB-018-2023	Total/NA	Water	9060	
MB 280-629865/35	Method Blank	Total/NA	Water	9060	
MB 280-629865/4	Method Blank	Total/NA	Water	9060	
LCS 280-629865/3	Lab Control Sample	Total/NA	Water	9060	
LCS 280-629865/34	Lab Control Sample	Total/NA	Water	9060	

Client Sample ID: WBGmw-020-230901-GW
Lab Sample ID: 280-182443-1

Date Collected: 10/04/23 09:57
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			486.1 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 16:00	JPG	EET DEN

Client Sample ID: WBGmw-009-230901-GW
Lab Sample ID: 280-182443-2

Date Collected: 10/04/23 10:00
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			484.1 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 16:23	JPG	EET DEN
Total/NA	Prep	3535			484.1 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629680	10/13/23 20:13	JZ	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	628612	10/05/23 14:46	MEC	EET DEN
Total/NA	Analysis	9056A		1	10 mL	10 mL	628613	10/05/23 14:46	MEC	EET DEN
Total/NA	Analysis	9060		1	20 mL	20 mL	629865	10/14/23 07:27	ABW	EET DEN
Total/NA	Prep	9030B			50 mL	50 mL	629386	10/11/23 14:53	CAI	EET DEN
Total/NA	Analysis	EPA 9034		1			629388	10/11/23 14:56	CAI	EET DEN
Total/NA	Analysis	SM 2320B		1			629347	10/10/23 01:47	LL	EET DEN

Client Sample ID: WBGmw-014-230901-GW
Lab Sample ID: 280-182443-3

Date Collected: 10/04/23 10:25
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			485.1 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 16:46	JPG	EET DEN

Client Sample ID: WBGmw-006-230901-GW
Lab Sample ID: 280-182443-4

Date Collected: 10/04/23 11:20
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			478.3 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 17:09	JPG	EET DEN
Total/NA	Prep	3535			478.3 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629680	10/13/23 20:48	JZ	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	628612	10/05/23 16:16	MEC	EET DEN
Total/NA	Analysis	9056A		1	10 mL	10 mL	628613	10/05/23 16:16	MEC	EET DEN
Total/NA	Analysis	9060		1	20 mL	20 mL	629865	10/14/23 07:45	ABW	EET DEN
Total/NA	Prep	9030B			50 mL	50 mL	629386	10/11/23 14:53	CAI	EET DEN
Total/NA	Analysis	EPA 9034		1			629388	10/11/23 14:56	CAI	EET DEN
Total/NA	Analysis	SM 2320B		1			629347	10/10/23 01:54	LL	EET DEN

Client Sample ID: WBGmw-016-230901-GW
Lab Sample ID: 280-182443-5

Date Collected: 10/04/23 11:25
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			489.8 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 17:32	JPG	EET DEN

Client Sample ID: WBGmw-021-230901-GW
Lab Sample ID: 280-182443-6

Date Collected: 10/04/23 12:40
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			481 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 18:41	JPG	EET DEN
Total/NA	Prep	3535			481 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629680	10/13/23 21:23	JZ	EET DEN

Client Sample ID: WBGmw-018-230901-GW
Lab Sample ID: 280-182443-7

Date Collected: 10/04/23 14:30
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			492.5 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 19:04	JPG	EET DEN
Total/NA	Prep	3535			492.5 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629680	10/13/23 21:58	JZ	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	628612	10/06/23 00:47	MEC	EET DEN
Total/NA	Analysis	9056A		1	10 mL	10 mL	628613	10/06/23 00:47	MEC	EET DEN
Total/NA	Analysis	9060		1	20 mL	20 mL	629865	10/14/23 08:04	ABW	EET DEN
Total/NA	Prep	9030B			50 mL	50 mL	629386	10/11/23 14:53	CAI	EET DEN
Total/NA	Analysis	EPA 9034		1			629388	10/11/23 14:56	CAI	EET DEN
Total/NA	Analysis	SM 2320B		1			629347	10/10/23 02:12	LL	EET DEN

Client Sample ID: WBGMW-RB-018-2023
Lab Sample ID: 280-182443-8

Date Collected: 10/04/23 16:00
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			487.4 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 19:27	JPG	EET DEN
Total/NA	Prep	3535			487.4 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629680	10/13/23 22:33	JZ	EET DEN
Total/NA	Analysis	9056		1	10 mL	10 mL	628612	10/06/23 01:47	MEC	EET DEN
Total/NA	Analysis	9056A		1	10 mL	10 mL	628613	10/06/23 01:47	MEC	EET DEN
Total/NA	Analysis	9060		1	20 mL	20 mL	629865	10/14/23 23:27	ABW	EET DEN
Total/NA	Prep	9030B			50 mL	50 mL	629386	10/11/23 14:53	CAI	EET DEN
Total/NA	Analysis	EPA 9034		1			629388	10/11/23 14:56	CAI	EET DEN
Total/NA	Analysis	SM 2320B		1			629347	10/10/23 02:17	LL	EET DEN

Lab Chronicle

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-182443-1

Client Sample ID: WBGmw-017-230901-GW

Lab Sample ID: 280-182443-9

Date Collected: 10/04/23 16:00
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			487 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 19:50	JPG	EET DEN

Client Sample ID: FBQmw-175-230901-GW

Lab Sample ID: 280-182443-10

Date Collected: 10/04/23 15:25
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			464.4 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 20:13	JPG	EET DEN

Client Sample ID: FBQmw-175-230902-GW

Lab Sample ID: 280-182443-11

Date Collected: 10/04/23 15:25
Matrix: Water
Date Received: 10/05/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			481.7 mL	5 mL	629324	10/11/23 13:57	EH	EET DEN
Total/NA	Analysis	8330B		1	1 mL	1 mL	629481	10/12/23 20:36	JPG	EET DEN

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-182443-1

Laboratory: Eurofins Denver

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23

Method Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-182443-1

Method	Method Description	Protocol	Laboratory
8330B	Nitroaromatics and Nitramines (HPLC)	EPA	EET DEN
9056	Anions, Ion Chromatography	SW846	EET DEN
9056A	Anions, Ion Chromatography	SW846	EET DEN
9060	Organic Carbon, Total (TOC)	SW846	EET DEN
EPA 9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	EET DEN
SM 2320B	Alkalinity	SM	EET DEN
3535	Solid-Phase Extraction (SPE)	SW846	EET DEN
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	EET DEN

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Leidos, Inc.
Project/Site: RVAAP FWGW

Job ID: 280-182443-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-182443-1	WBGmw-020-230901-GW	Water	10/04/23 09:57	10/05/23 10:00
280-182443-2	WBGmw-009-230901-GW	Water	10/04/23 10:00	10/05/23 10:00
280-182443-3	WBGmw-014-230901-GW	Water	10/04/23 10:25	10/05/23 10:00
280-182443-4	WBGmw-006-230901-GW	Water	10/04/23 11:20	10/05/23 10:00
280-182443-5	WBGmw-016-230901-GW	Water	10/04/23 11:25	10/05/23 10:00
280-182443-6	WBGmw-021-230901-GW	Water	10/04/23 12:40	10/05/23 10:00
280-182443-7	WBGmw-018-230901-GW	Water	10/04/23 14:30	10/05/23 10:00
280-182443-8	WBGMW-RB-018-2023	Water	10/04/23 16:00	10/05/23 10:00
280-182443-9	WBGmw-017-230901-GW	Water	10/04/23 16:00	10/05/23 10:00
280-182443-10	FBQmw-175-230901-GW	Water	10/04/23 15:25	10/05/23 10:00
280-182443-11	FBQmw-175-230902-GW	Water	10/04/23 15:25	10/05/23 10:00

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: IC 280-617295/11 Client Sample ID:

Date Analyzed: 06/23/23 17:53 Lab File ID: 06230011.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.46	Baseline	LV5D	06/23/23 18:20
HMX	6.59	Baseline	LV5D	06/23/23 18:20
DNX	6.80	Baseline	LV5D	06/23/23 18:19
MNX	7.22	Baseline	LV5D	06/23/23 18:20

Lab Sample ID: IC 280-617295/12 Client Sample ID:

Date Analyzed: 06/23/23 18:16 Lab File ID: 06230012.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 18:54
HMX	6.60	Baseline	LV5D	06/23/23 18:54
DNX	6.80	Baseline	LV5D	06/23/23 18:54

Lab Sample ID: IC 280-617295/13 Client Sample ID:

Date Analyzed: 06/23/23 18:39 Lab File ID: 06230013.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 19:10
HMX	6.59	Baseline	LV5D	06/23/23 19:10
DNX	6.80	Baseline	LV5D	06/23/23 19:10

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: IC 280-617295/14 Client Sample ID:

Date Analyzed: 06/23/23 19:02 Lab File ID: 06230014.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 19:38
HMX	6.60	Baseline	LV5D	06/23/23 19:38
DNX	6.81	Baseline	LV5D	06/23/23 19:38

Lab Sample ID: IC 280-617295/15 Client Sample ID:

Date Analyzed: 06/23/23 19:25 Lab File ID: 06230015.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.48	Baseline	LV5D	06/23/23 20:05
HMX	6.60	Baseline	LV5D	06/23/23 20:05
DNX	6.81	Baseline	LV5D	06/23/23 20:05

Lab Sample ID: IC 280-617295/16 Client Sample ID:

Date Analyzed: 06/23/23 19:48 Lab File ID: 06230016.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 20:36
HMX	6.60	Baseline	LV5D	06/23/23 20:36
DNX	6.80	Baseline	LV5D	06/23/23 20:36

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: IC 280-617295/17 Client Sample ID:

Date Analyzed: 06/23/23 20:11 Lab File ID: 06230017.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 20:36
HMX	6.60	Baseline	LV5D	06/23/23 20:36
DNX	6.80	Baseline	LV5D	06/23/23 20:36
PETN	14.75	Baseline	LV5D	06/23/23 20:36

Lab Sample ID: IC 280-617295/18 Client Sample ID:

Date Analyzed: 06/23/23 20:34 Lab File ID: 06230018.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 21:02
HMX	6.59	Baseline	LV5D	06/23/23 21:02
DNX	6.80	Baseline	LV5D	06/23/23 21:02
PETN	14.72	Baseline	LV5D	06/23/23 21:02

Lab Sample ID: IC 280-617295/19 Client Sample ID:

Date Analyzed: 06/23/23 20:57 Lab File ID: 06230019.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 21:21
HMX	6.60	Baseline	LV5D	06/23/23 21:21
DNX	6.80	Baseline	LV5D	06/23/23 21:21
PETN	14.72	Unspecified		

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: ICV 280-617295/20 Client Sample ID:

Date Analyzed: 06/23/23 21:20 Lab File ID: 06230020.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.47	Baseline	LV5D	06/23/23 21:43
HMX	6.60	Baseline	LV5D	06/23/23 21:43
DNX	6.80	Baseline	LV5D	06/23/23 21:43

Lab Sample ID: IC 280-617295/21 Client Sample ID:

Date Analyzed: 06/23/23 21:43 Lab File ID: 06230021.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:41
2,4-diamino-6-nitrotoluene	6.66	Baseline	LV5D	06/24/23 10:41

Lab Sample ID: IC 280-617295/22 Client Sample ID:

Date Analyzed: 06/23/23 22:06 Lab File ID: 06230022.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:41
2,4-diamino-6-nitrotoluene	6.66	Baseline	LV5D	06/24/23 10:41

Lab Sample ID: IC 280-617295/23 Client Sample ID:

Date Analyzed: 06/23/23 22:29 Lab File ID: 06230023.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:42
2,4-diamino-6-nitrotoluene	6.67	Baseline	LV5D	06/24/23 10:42

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: IC 280-617295/24 Client Sample ID:

Date Analyzed: 06/23/23 22:52 Lab File ID: 06230024.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:42
2,4-diamino-6-nitrotoluene	6.67	Baseline	LV5D	06/24/23 10:42

Lab Sample ID: IC 280-617295/25 Client Sample ID:

Date Analyzed: 06/23/23 23:14 Lab File ID: 06230025.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.48	Baseline	LV5D	06/24/23 10:42
2,4-diamino-6-nitrotoluene	6.67	Baseline	LV5D	06/24/23 10:42

Lab Sample ID: IC 280-617295/26 Client Sample ID:

Date Analyzed: 06/23/23 23:37 Lab File ID: 06230026.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:42
2,4-diamino-6-nitrotoluene	6.66	Baseline	LV5D	06/24/23 10:42

Lab Sample ID: IC 280-617295/27 Client Sample ID:

Date Analyzed: 06/24/23 00:00 Lab File ID: 06230027.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.48	Baseline	LV5D	06/24/23 12:55
2,4-diamino-6-nitrotoluene	6.67	Baseline	LV5D	06/24/23 12:55

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 617295

Lab Sample ID: IC 280-617295/28 Client Sample ID:

Date Analyzed: 06/24/23 00:23 Lab File ID: 06230028.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:43
2,4-diamino-6-nitrotoluene	6.66	Baseline	LV5D	06/24/23 10:43

Lab Sample ID: ICV 280-617295/29 Client Sample ID:

Date Analyzed: 06/24/23 00:46 Lab File ID: 06230029.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.47	Baseline	LV5D	06/24/23 10:43
2,4-diamino-6-nitrotoluene	6.66	Baseline	LV5D	06/24/23 10:43

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 629481

Lab Sample ID: CCV 280-629481/8 Client Sample ID:

Date Analyzed: 10/12/23 13:20 Lab File ID: 10120008.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	LV5D	10/12/23 13:56
HMX	6.57	Baseline	LV5D	10/12/23 13:56
DNX	6.77	Baseline	LV5D	10/12/23 13:56

Lab Sample ID: CCV 280-629481/9 Client Sample ID:

Date Analyzed: 10/12/23 13:43 Lab File ID: 10120009.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.44	Baseline	LV5D	10/12/23 15:54
2,4-diamino-6-nitrotoluene	6.63	Baseline	LV5D	10/12/23 15:54

Lab Sample ID: MB 280-629324/1-A Client Sample ID:

Date Analyzed: 10/12/23 14:06 Lab File ID: 10120011.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene		Invalid Compound ID	LV5D	10/12/23 16:23

Lab Sample ID: 280-182443-1 Client Sample ID: WBGmw-020-230901-GW

Date Analyzed: 10/12/23 16:00 Lab File ID: 10120016.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.21	Baseline	LV5D	10/12/23 19:22
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	10/12/23 19:22
TNX		Invalid Compound ID	LV5D	10/12/23 19:22

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 629481

Lab Sample ID: 280-182443-2 Client Sample ID: WBGmw-009-230901-GW

Date Analyzed: 10/12/23 16:23 Lab File ID: 10120017.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.57	Baseline	LV5D	10/12/23 19:23
MNX	7.19	Baseline	LV5D	10/12/23 19:23
RDX	7.58	Baseline	LV5D	10/12/23 19:23
1,2-Dinitrobenzene	8.52	Baseline	LV5D	10/12/23 19:23
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	10/12/23 19:23

Lab Sample ID: 280-182443-3 Client Sample ID: WBGmw-014-230901-GW

Date Analyzed: 10/12/23 16:46 Lab File ID: 10120018.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX		Invalid Compound ID	LV5D	10/12/23 19:23

Lab Sample ID: 280-182443-4 Client Sample ID: WBGmw-006-230901-GW

Date Analyzed: 10/12/23 17:09 Lab File ID: 10120019.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.57	Baseline	LV5D	10/12/23 19:23
MNX	7.20	Baseline	LV5D	10/12/23 19:23
RDX	7.58	Baseline	LV5D	10/12/23 19:23
1,2-Dinitrobenzene	8.52	Baseline	LV5D	10/12/23 19:23
1,3-Dinitrobenzene		Invalid Compound ID	LV5D	10/12/23 19:23
2,6-diamino-4-nitrotoluene		Invalid Compound ID	LV5D	10/12/23 19:23

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 629481

Lab Sample ID: 280-182443-5 Client Sample ID: WBGmw-016-230901-GW

Date Analyzed: 10/12/23 17:32 Lab File ID: 10120020.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.52	Baseline	LV5D	10/12/23 19:23
TNX		Invalid Compound ID	LV5D	10/12/23 19:23

Lab Sample ID: CCV 280-629481/21 Client Sample ID:

Date Analyzed: 10/12/23 17:55 Lab File ID: 10120021.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.44	Baseline	LV5D	10/12/23 19:22
2,4-diamino-6-nitrotoluene	6.63	Baseline	LV5D	10/12/23 19:22

Lab Sample ID: CCV 280-629481/22 Client Sample ID:

Date Analyzed: 10/12/23 18:18 Lab File ID: 10120022.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	LV5D	10/12/23 19:23
HMX	6.57	Baseline	LV5D	10/12/23 19:24
DNX	6.77	Baseline	LV5D	10/12/23 19:24

Lab Sample ID: 280-182443-6 Client Sample ID: WBGmw-021-230901-GW

Date Analyzed: 10/12/23 18:41 Lab File ID: 10120023.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.57	Baseline	LV5D	10/12/23 19:24
MNX	7.21	Baseline	LV5D	10/12/23 19:24
1,2-Dinitrobenzene	8.52	Baseline	LV5D	10/12/23 19:24

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 629481

Lab Sample ID: 280-182443-7 Client Sample ID: WBGmw-018-230901-GW

Date Analyzed: 10/12/23 19:04 Lab File ID: 10120024.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.53	Unspecified		
RDX	7.57	Baseline	LV5D	10/12/23 19:47
1,2-Dinitrobenzene	8.52	Baseline	LV5D	10/12/23 19:47
2,6-diamino-4-nitrotoluene		Baseline	LV5D	10/12/23 19:47

Lab Sample ID: 280-182443-8 Client Sample ID: WBGMW-RB-018-2023

Date Analyzed: 10/12/23 19:27 Lab File ID: 10120025.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	6.63	Baseline	K8YG	10/13/23 08:16
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	K8YG	10/13/23 08:16
DNX		Invalid Compound ID	K8YG	10/13/23 08:16
MNX		Invalid Compound ID	K8YG	10/13/23 08:16
Nitrobenzene		Invalid Compound ID	K8YG	10/13/23 08:16
Nitroglycerin		Invalid Compound ID	K8YG	10/13/23 08:16
PETN		Invalid Compound ID	K8YG	10/13/23 08:17
2,4,6-Trinitrotoluene	10.87	Baseline	K8YG	10/13/23 08:16

Lab Sample ID: 280-182443-9 Client Sample ID: WBGmw-017-230901-GW

Date Analyzed: 10/12/23 19:50 Lab File ID: 10120026.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.51	Baseline	K8YG	10/13/23 08:17
HMX		Invalid Compound ID	K8YG	10/13/23 08:17

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 629481

Lab Sample ID: 280-182443-10 Client Sample ID: FBQmw-175-230901-GW

Date Analyzed: 10/12/23 20:13 Lab File ID: 10120027.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.51	Baseline	K8YG	10/13/23 08:18
2,6-diamino-4-nitrotoluene		Invalid Compound ID	K8YG	10/13/23 12:21
RDX		Invalid Compound ID	K8YG	10/13/23 08:17

Lab Sample ID: 280-182443-11 Client Sample ID: FBQmw-175-230902-GW

Date Analyzed: 10/12/23 20:36 Lab File ID: 10120028.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	8.52	Baseline	K8YG	10/13/23 08:18
2,6-diamino-4-nitrotoluene		Invalid Compound ID	K8YG	10/13/23 12:21
RDX		Invalid Compound ID	K8YG	10/13/23 08:18

Lab Sample ID: CCV 280-629481/32 Client Sample ID:

Date Analyzed: 10/12/23 22:08 Lab File ID: 10120032.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.45	Baseline	K8YG	10/13/23 08:36
2,4-diamino-6-nitrotoluene	6.63	Baseline	K8YG	10/13/23 08:37

Lab Sample ID: CCV 280-629481/33 Client Sample ID:

Date Analyzed: 10/12/23 22:31 Lab File ID: 10120033.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.45	Baseline	K8YG	10/13/23 08:39
HMX	6.57	Baseline	K8YG	10/13/23 08:39
DNX	6.77	Baseline	K8YG	10/13/23 08:39

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Analysis Batch Number: 629671

Lab Sample ID: CCV 280-629671/8 Client Sample ID:

Date Analyzed: 10/13/23 14:34 Lab File ID: 10130008.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.44	Baseline	LV5D	10/13/23 18:51
HMX	6.58	Baseline	LV5D	10/13/23 18:51
DNX	6.78	Baseline	LV5D	10/13/23 18:51

Lab Sample ID: CCV 280-629671/9 Client Sample ID:

Date Analyzed: 10/13/23 14:57 Lab File ID: 10130009.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,6-diamino-4-nitrotoluene	6.44	Baseline	LV5D	10/13/23 18:51
2,4-diamino-6-nitrotoluene	6.63	Baseline	LV5D	10/13/23 18:51

Lab Sample ID: CCV 280-629671/16 Client Sample ID:

Date Analyzed: 10/13/23 17:15 Lab File ID: 10130016.D GC Column: UltraCarb5uO ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	6.45	Baseline	LV5D	10/13/23 18:54
HMX	6.57	Baseline	LV5D	10/13/23 18:54
DNX	6.77	Baseline	LV5D	10/13/23 18:54

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 626878

Lab Sample ID: IC 280-626878/10 Client Sample ID:

Date Analyzed: 09/20/23 20:01 Lab File ID: 09200010.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.36	Peak assignment corrected	LV5D	09/21/23 11:52
3,5-Dinitroaniline	14.65	Baseline Smoothing	LV5D	09/21/23 11:52
1,3-Dinitrobenzene	14.80	Baseline Smoothing	LV5D	09/21/23 11:52
2-Nitrotoluene	16.01	Baseline Smoothing	LV5D	09/21/23 11:52
4-Nitrotoluene	16.09	Baseline Smoothing	LV5D	09/21/23 11:52
1,3,5-Trinitrobenzene	17.64	Baseline Smoothing	LV5D	09/21/23 11:52
2-Amino-4,6-dinitrotoluene	17.64	Baseline Smoothing	LV5D	09/21/23 11:52

Lab Sample ID: IC 280-626878/11 Client Sample ID:

Date Analyzed: 09/20/23 20:36 Lab File ID: 09200011.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.44	Baseline Smoothing	LV5D	09/21/23 11:53
2-Amino-4,6-dinitrotoluene	17.67	Baseline Smoothing	LV5D	09/21/23 11:52
1,3,5-Trinitrobenzene	17.68	Baseline Smoothing	LV5D	09/21/23 11:52
PETN	24.94	Baseline Smoothing	LV5D	09/21/23 16:04

Lab Sample ID: IC 280-626878/12 Client Sample ID:

Date Analyzed: 09/20/23 21:11 Lab File ID: 09200012.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.48	Baseline Smoothing	LV5D	09/21/23 11:53
2-Amino-4,6-dinitrotoluene	17.67	Baseline Smoothing	LV5D	09/21/23 11:53
1,3,5-Trinitrobenzene	17.70	Baseline Smoothing	LV5D	09/21/23 11:53
PETN	24.96	Baseline Smoothing	LV5D	09/21/23 16:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 626878

Lab Sample ID: IC 280-626878/13 Client Sample ID:

Date Analyzed: 09/20/23 21:45 Lab File ID: 09200013.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.53	Baseline Smoothing	LV5D	09/21/23 11:53
2-Amino-4,6-dinitrotoluene	17.67	Baseline Smoothing	LV5D	09/21/23 11:53
1,3,5-Trinitrobenzene	17.70	Baseline Smoothing	LV5D	09/21/23 11:53
PETN	24.96	Baseline Smoothing	LV5D	09/21/23 16:04

Lab Sample ID: IC 280-626878/14 Client Sample ID:

Date Analyzed: 09/20/23 22:20 Lab File ID: 09200014.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.55	Baseline Smoothing	LV5D	09/21/23 11:53
2-Amino-4,6-dinitrotoluene	17.69	Baseline Smoothing	LV5D	09/21/23 11:53
1,3,5-Trinitrobenzene	17.70	Baseline Smoothing	LV5D	09/21/23 11:53
PETN	24.96	Baseline Smoothing	LV5D	09/21/23 16:04

Lab Sample ID: IC 280-626878/15 Client Sample ID:

Date Analyzed: 09/20/23 22:55 Lab File ID: 09200015.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.71	Unspecified		
1,3,5-Trinitrobenzene	17.74	Baseline Smoothing	LV5D	09/21/23 11:53
PETN	24.97	Baseline Smoothing	LV5D	09/21/23 16:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 626878

Lab Sample ID: IC 280-626878/16 Client Sample ID:

Date Analyzed: 09/20/23 23:30 Lab File ID: 09200016.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.72	Unspecified		
1,3,5-Trinitrobenzene	17.73	Baseline Smoothing	LV5D	09/21/23 11:54
PETN	25.00	Baseline Smoothing	LV5D	09/21/23 16:04

Lab Sample ID: IC 280-626878/17 Client Sample ID:

Date Analyzed: 09/21/23 00:05 Lab File ID: 09200017.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.71	Unspecified		
1,3,5-Trinitrobenzene	17.73	Baseline Smoothing	LV5D	09/21/23 11:54
PETN	24.99	Baseline Smoothing	LV5D	09/21/23 16:04

Lab Sample ID: IC 280-626878/18 Client Sample ID:

Date Analyzed: 09/21/23 00:40 Lab File ID: 09200018.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Picric acid	8.64	Baseline Smoothing	LV5D	09/21/23 11:54
2-Nitrotoluene	16.10	Baseline Smoothing	LV5D	09/21/23 11:54
4-Nitrotoluene	16.32	Unspecified		
2-Amino-4,6-dinitrotoluene	17.73	Unspecified		
1,3,5-Trinitrobenzene	17.74	Baseline Smoothing	LV5D	09/21/23 11:54
PETN	25.01	Baseline Smoothing	LV5D	09/21/23 16:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 626878

Lab Sample ID: ICV 280-626878/19 Client Sample ID:

Date Analyzed: 09/21/23 01:15 Lab File ID: 09200019.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.69	Baseline Smoothing	LV5D	09/21/23 11:54
1,3,5-Trinitrobenzene	17.70	Unspecified		
PETN	24.97	Baseline Smoothing	LV5D	09/21/23 16:04

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 629680

Lab Sample ID: CCV 280-629680/9 Client Sample ID:

Date Analyzed: 10/13/23 16:43 Lab File ID: 10130009.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.64	Baseline	LV5D	10/13/23 18:55
1,3,5-Trinitrobenzene	17.66	Unspecified		

Lab Sample ID: 280-182443-2 Client Sample ID: WBGmw-009-230901-GW

Date Analyzed: 10/13/23 20:13 Lab File ID: 10130015.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MNX	7.71	Baseline Smoothing	LV5D	10/14/23 14:15
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:15
2-Nitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:15

Lab Sample ID: 280-182443-4 Client Sample ID: WBGmw-006-230901-GW

Date Analyzed: 10/13/23 20:48 Lab File ID: 10130016.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
TNX	5.29	Baseline Smoothing	LV5D	10/14/23 14:19
MNX	7.71	Baseline Smoothing	LV5D	10/14/23 14:18
2,4-diamino-6-nitrotoluene		Baseline Smoothing	LV5D	10/14/23 14:19
2,6-Dinitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:18
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:18
2-Nitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:18
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:18

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 629680

Lab Sample ID: 280-182443-6 Client Sample ID: WBGmw-021-230901-GW

Date Analyzed: 10/13/23 21:23 Lab File ID: 10130017.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:19
2-Nitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:19
4-Amino-2,6-dinitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:19
RDX		Invalid Compound ID	LV5D	10/14/23 14:19

Lab Sample ID: 280-182443-7 Client Sample ID: WBGmw-018-230901-GW

Date Analyzed: 10/13/23 21:58 Lab File ID: 10130018.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.83	Baseline Smoothing	LV5D	10/14/23 14:19
RDX	9.12	Baseline Smoothing	LV5D	10/14/23 14:19
2,6-Dinitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:19
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:19
2-Nitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:19

Lab Sample ID: 280-182443-8 Client Sample ID: WBGMW-RB-018-2023

Date Analyzed: 10/13/23 22:33 Lab File ID: 10130019.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
HMX	6.86	Baseline Smoothing	LV5D	10/14/23 14:19
2,6-Dinitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:19
2-Amino-4,6-dinitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:19
2-Nitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:19
3-Nitrotoluene		Invalid Compound ID	LV5D	10/14/23 14:19
3,5-Dinitroaniline	14.57	Baseline Smoothing	LV5D	10/14/23 14:19

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X5 Analysis Batch Number: 629680

Lab Sample ID: CCV 280-629680/20 Client Sample ID:

Date Analyzed: 10/13/23 23:08 Lab File ID: 10130020.D GC Column: Luna-phenylh ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	17.61	Split Peak	LV5D	10/14/23 10:51
1,3,5-Trinitrobenzene	17.65	Unspecified		

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 623067

Lab Sample ID: STD1 280-623067/1 IC Client Sample ID:

Date Analyzed: 08/16/23 08:23 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Orthophosphate as P	8.59	Baseline Smoothing	LVW8	08/16/23 10:42

Lab Sample ID: STD2 280-623067/2 IC Client Sample ID:

Date Analyzed: 08/16/23 08:38 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Orthophosphate as P	8.58	Baseline Smoothing	LVW8	08/16/23 10:36

Lab Sample ID: STD3 280-623067/3 IC Client Sample ID:

Date Analyzed: 08/16/23 08:54 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Orthophosphate as P	8.57	Baseline Smoothing	LVW8	08/16/23 10:27

Lab Sample ID: STD4 280-623067/4 IC Client Sample ID:

Date Analyzed: 08/16/23 09:09 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Orthophosphate as P	8.54	Baseline Smoothing	LVW8	08/16/23 10:28

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 623068

Lab Sample ID: STD1 280-623068/1 IC Client Sample ID:

Date Analyzed: 08/16/23 08:23 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.07	Baseline Smoothing	LVW8	08/16/23 10:30
Sulfate	9.64	Baseline Smoothing	LVW8	08/16/23 10:46

Lab Sample ID: STD2 280-623068/2 IC Client Sample ID:

Date Analyzed: 08/16/23 08:38 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.08	Baseline Smoothing	LVW8	08/16/23 10:30
Sulfate	9.64	Baseline Smoothing	LVW8	08/16/23 10:36

Lab Sample ID: STD3 280-623068/3 IC Client Sample ID:

Date Analyzed: 08/16/23 08:54 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.08	Baseline Smoothing	LVW8	08/16/23 10:30
Sulfate	9.64	Baseline Smoothing	LVW8	08/16/23 10:27

Lab Sample ID: STD4 280-623068/4 IC Client Sample ID:

Date Analyzed: 08/16/23 09:09 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.08	Baseline Smoothing	LVW8	08/16/23 10:30
Sulfate	9.63	Baseline Smoothing	LVW8	08/16/23 10:28

GENERAL CHEMISTRY MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Batch Number: 623068

Lab Sample ID: STD5 280-623068/5 IC Client Sample ID:

Date Analyzed: 08/16/23 09:24 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.09	Baseline Smoothing	LVW8	08/16/23 10:30

Lab Sample ID: STD6 280-623068/6 IC Client Sample ID:

Date Analyzed: 08/16/23 09:39 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.09	Baseline Smoothing	LVW8	08/16/23 10:29

Lab Sample ID: ICV 280-623068/8 Client Sample ID:

Date Analyzed: 08/16/23 10:08 Lab File ID: Info 2_DENPC179_Anions_2 GC Column: Metrosepp A ID:

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Fluoride	3.08	Baseline Smoothing	LVW8	08/16/23 10:56

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330 DMT_00013	08/24/23	02/24/23	Acetonitrile, Lot ACN_237	5 mL	MNX,TNX,DNX_00076	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.06 ug/mL
.MNX,TNX,DNX_00076	02/29/24		Agilent, Lot 0006725091		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.3 ug/mL
8330 DMT_00015	01/20/24	07/20/23	Acetonitrile, Lot 222063	5 mL	MNX,TNX,DNX_00080	1 mL	DNX	20.02 ug/mL
							MNX	23.34 ug/mL
							TNX	20.06 ug/mL
.MNX,TNX,DNX_00080	02/29/24		Agilent, Lot 0006725091		(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.3 ug/mL
8330 LCS_00127	11/30/23	05/31/23	Acetonitrile, Lot Acetonitrile_00079	100 mL	3,5-DNA Stock_00043	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330_NG_Stk_00132	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00133	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00137	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00138	1 mL	PETN	100 ug/mL
					8330LCSMix1_00142	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00041	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
.3,5-DNA Stock_00043	08/31/27		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330_NG_Stk_00132	02/17/26		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00133	02/17/26		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00137	08/31/25		Restek, Lot A0188550		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00138	08/31/25		Restek, Lot A0188550		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00142	04/30/27		Restek, Lot A0183848		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00041	12/31/27		Restek, Lot A0192237		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
8330 LCS_00130	01/01/24	08/09/23	Acetonitrile, Lot Acetonitrile_00080	100 mL	3,5-DNA Stock_00046	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330_NG_Stk_00137	1.2 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00138	0.8 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00141	0.4 mL	PETN	100 ug/mL
					8330_PETN_Stk_00144	1.4 mL	PETN	100 ug/mL
					8330_PETN_Stk_00145	0.2 mL	PETN	100 ug/mL
					8330LCSMix1_00145	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00043	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
.3,5-DNA Stock_00046	08/09/24		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330_NG_Stk_00137	08/09/24		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00138	08/09/24		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00141	07/01/24		Restek, Lot A0197735		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00144	08/09/24		Restek, Lot A0197735		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00145	08/09/24		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00145	08/09/24		Restek, Lot A0163590		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00043	08/09/24		Restek, Lot A0192237		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330 LCS_00131	03/22/24	09/22/23	Acetonitrile, Lot Acetonitrile_00080	100 mL	3,5-DNA Stock_00047	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330_NG_Stk_00139	1 mL	Nitroglycerin	100 ug/mL
					8330_NG_Stk_00140	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN_Stk_00145	1 mL	PETN	100 ug/mL
					8330_PETN_Stk_00146	1 mL	PETN	100 ug/mL
					8330LCSMix1_00146	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
					8330LCSmix2_00044	1 mL	2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							Tetryl	10 ug/mL
					PicricARestek_00119	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.3,5-DNA Stock_00047	09/22/24		Restek, Lot A0193965		(Purchased Reagent)		3,5-Dinitroaniline	1000 ug/mL
.8330_NG_Stk_00139	09/22/24		Restek, Lot A0194930		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_NG_Stk_00140	09/22/24		Restek, Lot A0200560		(Purchased Reagent)		Nitroglycerin	5000 ug/mL
.8330_PETN_Stk_00145	08/09/24		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330_PETN_Stk_00146	09/22/24		Restek, Lot A0198972		(Purchased Reagent)		PETN	5000 ug/mL
.8330LCSMix1_00146	09/22/24		Restek, Lot A0163590		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
.8330LCSmix2_00044	09/22/24		Restek, Lot A0192237		(Purchased Reagent)		2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							Tetryl	1000 ug/mL
.PicricARestek_00119	09/22/24		Restek, Lot A0183202		(Purchased Reagent)		2,4,6-Trinitrophenol	1000 ug/mL
8330_ADDs_00037	11/04/23	05/04/23	Acetonitrile, Lot ACN_237	5 mL	2,4Diamino6NT_00095	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00096	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
.2,4Diamino6NT_00095	04/10/24		AccuStandard, Lot 220121267-01		(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00096	05/04/24		AccuStandard, Lot 222051002		(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
8330_ADDs_00038	04/10/24	10/13/23	Acetonitrile, Lot 233272	5 mL	2,4Diamino6NT_00096	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00097	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
.2,4Diamino6NT_00096	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00097	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330_OP_DMT_00021	02/29/24	06/21/23	Acetonitrile, Lot Acetonitrile_00077	10 mL	MNX,TNX,DNX_00078	1 mL	DNX	10.01 ug/mL
							MNX	11.67 ug/mL
							TNX	10.03 ug/mL
.MNX,TNX,DNX_00078	02/29/24	Agilent, Lot 0006725091			(Purchased Reagent)		DNX	100.1 ug/mL
							MNX	116.7 ug/mL
							TNX	100.3 ug/mL
8330_OP_DMT_00022	03/31/24	08/31/23	Acetonitrile, Lot Acetonitrile_00080	10 mL	MNX,TNX,DNX_00081	1 mL	DNX	10.04 ug/mL
							MNX	11.71 ug/mL
							TNX	10.01 ug/mL
.MNX,TNX,DNX_00081	03/31/24	Agilent, Lot 0006731787			(Purchased Reagent)		DNX	100.4 ug/mL
							MNX	117.1 ug/mL
							TNX	100.1 ug/mL
8330_OP_DMT_00024	03/31/24	10/03/23	Acetonitrile, Lot Acetonitrile_00080	10 mL	MNX,TNX,DNX_00083	1 mL	DNX	10.04 ug/mL
							MNX	11.71 ug/mL
							TNX	10.01 ug/mL
.MNX,TNX,DNX_00083	03/31/24	Agilent, Lot 0006731787			(Purchased Reagent)		DNX	100.4 ug/mL
							MNX	117.1 ug/mL
							TNX	100.1 ug/mL
8330DiaminLCS_00058	04/10/24	06/08/23	Acetonitrile, Lot Acetonitrile_00077	25 mL	2,4Diamino6NT_00103	1 mL	2,4-diamino-6-nitrotoluene	10 ug/mL
					2,4Diamino6NT_00104	1 mL	2,4-diamino-6-nitrotoluene	10 ug/mL
					2,4Diamino6NT_00105	0.5 mL	2,4-diamino-6-nitrotoluene	10 ug/mL
					2,6Diamino4NT_00106	1 mL	2,6-diamino-4-nitrotoluene	10 ug/mL
					2,6Diamino4NT_00107	1 mL	2,6-diamino-4-nitrotoluene	10 ug/mL
					2,6Diamino4NT_00108	0.5 mL	2,6-diamino-4-nitrotoluene	10 ug/mL
.2,4Diamino6NT_00103	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00104	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00105	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00106	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00107	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00108	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330DiaminLCS_00059	04/10/24	07/05/23	Acetonitrile, Lot Acetonitrile_00077	10 mL	2,4Diamino6NT_00106	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,4Diamino6NT_00107	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00109	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00112	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
.2,4Diamino6NT_00106	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00107	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.2,6Diamino4NT_00109	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00112	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330DiaminLCS_00060	04/10/24	07/26/23	Acetonitrile, Lot Acetonitrile_00080	10 mL	2,4Diamino6NT_00110	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,4Diamino6NT_00111	1 mL	2,4-diamino-6-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00113	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
					2,6Diamino4NT_00114	1 mL	2,6-diamino-4-nitrotoluene	20 ug/mL
.2,4Diamino6NT_00110	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,4Diamino6NT_00111	04/10/24	AccuStandard, Lot 220121267-01			(Purchased Reagent)		2,4-diamino-6-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00113	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
.2,6Diamino4NT_00114	06/03/24	AccuStandard, Lot 222051002			(Purchased Reagent)		2,6-diamino-4-nitrotoluene	100 ug/mL
8330IntermStk_00077	10/06/23	06/22/23	Acetonitrile, Lot ACN_239	10 mL	8330_NG_AUX_00006	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00012	1 mL	PETN	100 ug/mL
					833035DNAStk_00055	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00034	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00072	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG_AUX_00006	06/22/24	Restek, Lot A0192092			(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00012	06/22/24	Restek, Lot A0194158			(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00055	10/06/23	Accustandard, Lot 222011692-01			(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00034	02/03/24	02/03/23	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00023	1 mL	1,3,5-Trinitrobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							2,4,6-Trinitrotoluene	100 ug/mL
							2,4-Dinitrotoluene	100 ug/mL
							2,6-Dinitrotoluene	100 ug/mL
							2-Amino-4,6-dinitrotoluene	100 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100 ug/mL
							4-Amino-2,6-dinitrotoluene	100 ug/mL
							4-Nitrotoluene	100 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							RDX	100 ug/mL
							Tetryl	100 ug/mL
					8330SurrStock_00172	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00023	02/03/24	Agilent, Lot 0006684308			(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00172	02/03/24	AccuStandard, Lot 219051500			(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00072	06/22/24	AccuStandard, Lot 218031154-04			(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330IntermStk_00078	02/03/24	09/20/23	Acetonitrile, Lot ACN_239	10 mL	8330_NG_AUX_00007	1 mL	Nitroglycerin	100 ug/mL
					8330_PETN1000_00013	1 mL	PETN	100 ug/mL
					833035DNAStk_00056	1 mL	3,5-Dinitroaniline	10 ug/mL
					8330ICALStock_00034	1 mL	1,3,5-Trinitrobenzene	10 ug/mL
							1,3-Dinitrobenzene	10 ug/mL
							2,4,6-Trinitrotoluene	10 ug/mL
							2,4-Dinitrotoluene	10 ug/mL
							2,6-Dinitrotoluene	10 ug/mL
							2-Amino-4,6-dinitrotoluene	10 ug/mL
							2-Nitrotoluene	10 ug/mL
							3-Nitrotoluene	10 ug/mL
							4-Amino-2,6-dinitrotoluene	10 ug/mL
							4-Nitrotoluene	10 ug/mL
							HMX	10 ug/mL
							Nitrobenzene	10 ug/mL
							RDX	10 ug/mL
							Tetryl	10 ug/mL
							1,2-Dinitrobenzene	10 ug/mL
					8330PAStkPS_00073	1 mL	2,4,6-Trinitrophenol	10 ug/mL
.8330_NG_AUX_00007	09/20/24	Restek, Lot A0192092			(Purchased Reagent)		Nitroglycerin	1000 ug/mL
.8330_PETN1000_00013	09/20/24	Restek, Lot A0194158			(Purchased Reagent)		PETN	1000 ug/mL
.833035DNAStk_00056	05/14/24	Accustandard, Lot 223041214			(Purchased Reagent)		3,5-Dinitroaniline	100 ug/mL
.8330ICALStock_00034	02/03/24	02/03/23	Acetonitrile, Lot ACN_238	10 mL	8330 Stock_TS_00023	1 mL	1,3,5-Trinitrobenzene	100 ug/mL
							1,3-Dinitrobenzene	100 ug/mL
							2,4,6-Trinitrotoluene	100 ug/mL
							2,4-Dinitrotoluene	100 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,6-Dinitrotoluene	100 ug/mL
							2-Amino-4,6-dinitrotoluene	100 ug/mL
							2-Nitrotoluene	100 ug/mL
							3-Nitrotoluene	100 ug/mL
							4-Amino-2,6-dinitrotoluene	100 ug/mL
							4-Nitrotoluene	100 ug/mL
							HMX	100 ug/mL
							Nitrobenzene	100 ug/mL
							RDX	100 ug/mL
							Tetryl	100 ug/mL
					8330SurrStock_00172	1 mL	1,2-Dinitrobenzene	100 ug/mL
..8330 Stock_TS_00023	02/03/24		Agilent, Lot 0006684308		(Purchased Reagent)		1,3,5-Trinitrobenzene	1000 ug/mL
							1,3-Dinitrobenzene	1000 ug/mL
							2,4,6-Trinitrotoluene	1000 ug/mL
							2,4-Dinitrotoluene	1000 ug/mL
							2,6-Dinitrotoluene	1000 ug/mL
							2-Amino-4,6-dinitrotoluene	1000 ug/mL
							2-Nitrotoluene	1000 ug/mL
							3-Nitrotoluene	1000 ug/mL
							4-Amino-2,6-dinitrotoluene	1000 ug/mL
							4-Nitrotoluene	1000 ug/mL
							HMX	1000 ug/mL
							Nitrobenzene	1000 ug/mL
							RDX	1000 ug/mL
							Tetryl	1000 ug/mL
..8330SurrStock_00172	02/03/24		AccuStandard, Lot 219051500		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330PAStkPS_00073	09/20/24		AccuStandard, Lot 223031306		(Purchased Reagent)		2,4,6-Trinitrophenol	100 ug/mL
8330Surrogate_00146	12/09/23	06/21/23	Acetonitrile, Lot Acetonitrile_00077	200 mL	8330SurrStkSS_00279	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00280	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00279	06/21/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00280	06/21/24		Restek, Lot A0194831		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00150	02/22/24	08/22/23	Acetonitrile, Lot Acetonitrile_00080	500 mL	8330SurrStkSS_00285	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00293	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00294	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00295	1 mL	1,2-Dinitrobenzene	10 ug/mL
					8330SurrStkSS_00296	1 mL	1,2-Dinitrobenzene	10 ug/mL
.8330SurrStkSS_00285	08/22/24		Restek, Lot A0197062		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00293	08/22/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00294	08/22/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00295	08/22/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
.8330SurrStkSS_00296	08/22/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
8330Surrogate_00151	04/05/24	10/05/23	Acetonitrile, Lot Acetonitrile_00082	500 mL	8330SurrStkSS_00292	0.5 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00297	1 mL	1,2-Dinitrobenzene	10 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00298	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00299	1.5 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
					8330SurrStkSS_00300	1 mL	1,2-Dinitrobenzene	10 ug/mL
							1,2-Dinitrobenzene (Surr)	10 ug/mL
.8330SurrStkSS_00292	08/09/24		Restek, Lot A0197062		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00297	10/05/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00298	10/05/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00299	10/05/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
.8330SurrStkSS_00300	10/05/24		Restek, Lot A0198799		(Purchased Reagent)		1,2-Dinitrobenzene	1000 ug/mL
							1,2-Dinitrobenzene (Surr)	1000 ug/mL
Alk daily lcs_01110	10/16/23	10/09/23	Di Water, Lot na	1000 mL	Alk stk std_00023	4 mL	Alkalinity	200 mg/L
.Alk stk std_00023	10/30/23		SPEX, Lot 2-106BT		(Purchased Reagent)		Alkalinity	50 g/L
IC CAL cl/so4_00494	08/16/23	08/09/23	Di Water, Lot na	100 mL	IC CL cal_00076	25 mL	Chloride	250 mg/L
					IC SO4 Cal_00009	25 mL	Sulfate	250 mg/L
.IC CL cal_00076	11/30/23		SPEX CertiPrep, Lot 5-146CL-2X		(Purchased Reagent)		Chloride	1000 mg/L
.IC SO4 Cal_00009	08/30/23		SPEX CertiPrep, Lot 5-160SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC CAL cl/so4_00502	10/11/23	10/04/23	Di Water, Lot na	100 mL	IC SO4 Cal_00010	25 mL	Sulfate	250 mg/L
.IC SO4 Cal_00010	11/30/23		SPEX CertiPrep, Lot 5-160SO4-2X		(Purchased Reagent)		Sulfate	1000 mg/L
IC Cal low_00722	08/16/23	08/09/23	Di Water, Lot NA	100 mL	IC BR ICV_00024	5 mL	Bromide	50 mg/L
					IC FL cal_00023	5 mL	Fluoride	50 mg/L
					IC N03 cal_00028	5 mL	Nitrate as N	50 mg/L
					IC P04 cal_00030	5 mL	Orthophosphate as P	50 mg/L
					NO2 ICV Std_00039	5 mL	Nitrite as N	50 mg/L
.IC BR ICV_00024	10/31/23		ricca, Lot 1204B86		(Purchased Reagent)		Bromide	1000 mg/L
.IC FL cal_00023	01/31/24		Ricca, Lot 2207H13		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N03 cal_00028	11/30/23		Ricca, Lot 2205B73		(Purchased Reagent)		Nitrate as N	1000 mg/L
.IC P04 cal_00030	07/31/24		RICCA, Lot 4208152		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.NO2 ICV Std_00039	10/31/23		Ricca, Lot 4304L74		(Purchased Reagent)		Nitrite as N	1000 mg/L
IC Cal low_00732	10/11/23	10/04/23	Di Water, Lot NA	100 mL	IC N03 cal_00028	5 mL	Nitrate as N	50 mg/L
					NO2 ICV Std_00039	5 mL	Nitrite as N	50 mg/L
.IC N03 cal_00028	11/30/23		Ricca, Lot 2205B73		(Purchased Reagent)		Nitrate as N	1000 mg/L
.NO2 ICV Std_00039	10/31/23		Ricca, Lot 4304L74		(Purchased Reagent)		Nitrite as N	1000 mg/L
IC ICV 5_00413	08/16/23	08/09/23	Di Water, Lot na	100 mL	IC NO2 ICV_00022	5 mL	Nitrite as N	50 mg/L
					IC NO3 ICV_00019	5 mL	Nitrate as N	50 mg/L
.IC NO2 ICV_00022	12/14/23		ERA, Lot 261221m		(Purchased Reagent)		Nitrite as N	1000 mg/L
.IC NO3 ICV_00019	12/01/23		ERA, Lot 011221m		(Purchased Reagent)		Nitrate as N	1000 mg/L
IC LCS_01981	10/11/23	10/04/23	Di Water, Lot 27	200 mL	IC Cal low_00732	20 mL	Nitrate as N	5 mg/L
							Nitrite as N	5 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					IC SO4 Cal_00010	20 mL	Sulfate	100 mg/L
.IC Cal low_00732	10/11/23	10/04/23	Di Water, Lot NA	100 mL	IC N03 cal_00028	5 mL	Nitrate as N	50 mg/L
					NO2 ICV Std_00039	5 mL	Nitrite as N	50 mg/L
..IC N03 cal_00028	11/30/23	Ricca, Lot 2205B73			(Purchased Reagent)		Nitrate as N	1000 mg/L
..NO2 ICV Std_00039	10/31/23	Ricca, Lot 4304L74			(Purchased Reagent)		Nitrite as N	1000 mg/L
.IC SO4 Cal_00010	11/30/23	SPEX CertiPrep, Lot 5-160SO4-2X			(Purchased Reagent)		Sulfate	1000 mg/L
IC SO4 ICV_00024	12/01/23	ERA, Lot 021221m			(Purchased Reagent)		Sulfate	1000 mg/L
ICMS/MSD WEEK_00839	10/11/23	10/04/23	Di Water, Lot NA	5 mL	IC SPK 6 ANIO_00028	2.5 mL	Nitrate as N	500.003 mg/L
							Sulfate	5000.51 mg/L
					IC SPK N02SOL_00021	2.5 mL	Nitrite as N	499.973 mg/L
.IC SPK 6 ANIO_00028	10/12/23	10/12/22	Di Water, Lot NA	1000 mL	IC MS/MSD N03_00006	6.068 g	Nitrate as N	1000.01 mg/L
					IC MS/MSD S04_00006	18.1408 g	Sulfate	10001 mg/L
..IC MS/MSD N03_00006	12/31/26	Spectrum, Lot 1LD0800			(Purchased Reagent)		Nitrate as N	0.1648 g/g
..IC MS/MSD S04_00006	09/29/23	FISHER, Lot 147276			(Purchased Reagent)		Sulfate	0.5513 g/g
.IC SPK N02SOL_00021	10/12/23	10/12/22	Di Water, Lot na	500 mL	IC MS/MSD N02_00005	2.4628 g	Nitrite as N	999.946 mg/L
..IC MS/MSD N02_00005	01/31/23	fisher, Lot 210979			(Purchased Reagent)		Nitrite as N	0.20301 g/g
SFD CAL INT_02487	12/26/23	09/26/23	ELGA Water, Lot NA	500 mL	50% NaOH_00023	2 mL	Sodium Hydroxide	2000 mg/L
					SFD CAL STK_00010	3.8652 g	Sulfide	1032.01 mg/L
.50% NaOH_00023	01/31/24	RICCA, Lot 1102857			(Purchased Reagent)		Sodium Hydroxide	50 %
.SFD CAL STK_00010	08/25/25	Thermo Scientific, Lot A0411500			(Purchased Reagent)		Sulfide	0.1335 g/g
TOC ICV Std_00052	01/01/24	Ricca, Lot 4301F19			(Purchased Reagent)		TOC Result 1	1000 ppm
							TOC Result 2	1000 ppm
							TOC Result 3	1000 ppm
							TOC Result 4	1000 ppm
							Total Organic Carbon - Average	1000 ppm
TOC LCS Std_00059	04/30/25	Agilent Technologies, Lot 0006736079			(Purchased Reagent)		TOC Result 1	1001 ppm
							TOC Result 2	1001 ppm
							TOC Result 3	1001 ppm
							TOC Result 4	1001 ppm
							Total Organic Carbon - Average	1001 ppm

Reagent

2,4Diamino6NT_00095

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,4Diamino6NT_00096

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,4Diamino6NT_00103

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,4Diamino6NT_00104

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,4Diamino6NT_00105

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,4Diamino6NT_00106

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,4Diamino6NT_00107

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,4Diamino6NT_00110

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,4Diamino6NT_00111

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-12
Description: 2,4-Diamino-6-nitrotoluene
Lot: 220121267-01
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 10, 2022
Expiration: Apr 10, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (LCMS)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
2,4-Diamino-6-nitrotoluene	6629-29-4	99.0	100.3	99.3

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00096

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ILAC-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information. Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,6Diamino4NT_00106

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information. Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,6Diamino4NT_00107

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information. Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,6Diamino4NT_00108

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information. Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

2,6Diamino4NT_00109

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information. Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: _____
Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

AccuStandard

Reagent

2,6Diamino4NT_00112

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00113

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

2,6Diamino4NT_00114

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-13
Description: 2,6-Diamino-4-nitrotoluene
Lot: 222051002
Solvent: Acetonitrile
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 3, 2022
Expiration: Jun 3, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Refrig (0-5 °C)

Certified Reference Material

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
2,6-Diamino-4-nitrotoluene	59229-75-3	99.7	101.0	100.7

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

1. **Quality Standards:**

   ISO 17034:2016 – General Requirements for the Competence of Reference Material Producers

   ISO/IEC 17025:2017 – General Requirements for the Competence of Testing And Calibration Laboratories

   ISO 9001:2015 – Quality Management System – Requirements Eagle Registrations

2. **Intended Use:** The product covered by this certificate is designed for calibration or for use in quality control procedures for the specified chemical compounds listed on the reverse side. This product can be used for quantification and/or identification. This product can also be used as a reference material to validate analytical procedures, subject to the conditions under Section 7.

3. **Manufacturing:** All balances are calibrated daily using an in-house procedure with weights that are compared annually to master weights and traceable to NIST. The balances are also calibrated annually by an ISO/IEC 17025 accredited calibration laboratory. Please refer to the NIST test number listed on the front of this certificate. Class A glassware is used in the manufacture and quality control of all standards. Good Laboratory Practices have been used throughout the preparation of this Standard.

4. **Homogeneity:** This product is sufficiently homogeneous and any sample size would be within the uncertainty budget.

5. **Stability:** The manufacturer guarantees the stability of this solution through the expiration date stated on the label, when handled and stored according to the conditions stated on the label

6. **Uncertainty:** The uncertainty values as stated on the face of this certificate have been determined using the EURACHEM/CITAC Guide. We report a combined expanded uncertainty equal to the positive square root of the total variance of the uncertainty of the components using the following formula: $u_a = \sqrt{(u(\mathrm{V}))^2 + (u(\mathrm{m}))^2 + (u(\mathrm{IV}))^2 + (u(\mathrm{RO}))^2}$ This formula represents uncertainty components from the mass, volume, short-term stability, long-term stability and homogeneity factors associated with the production of this product. The expanded uncertainty, assumes a normal distribution and a coverage factor of k=2 is chosen using approximately a 95% confidence level.

7. **Legal Notice and Limit of Liability:** This product is for routine laboratory analysis and research purposes only. The company's liability will be limited to replacement of product or refund of purchase price. Notice of claims must be made within thirty (30) days from date of delivery.

Reagent

3,5-DNA Stock_00043

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31661 **Lot No.:** A0193965

Description : 3,5-Dinitroaniline Standard

3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,004.0 µg/mL	+/- 37.4502

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

3,5-DNA Stock_00046

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31661 **Lot No.:** A0193965

Description : 3,5-Dinitroaniline Standard

3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,004.0 µg/mL	+/- 37.4502

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

3,5-DNA Stock_00047

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31661 **Lot No.:** A0193965

Description : 3,5-Dinitroaniline Standard

3, 5-Dinitroaniline Std 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	3,5-Dinitroaniline	618-87-1	10311HS	99%	1,004.0 µg/mL	+/- 37.4502

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

50% NaOH_00023

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Sodium Hydroxide, 50% (w/w) (760 g/L), Analytical Reagent Grade

Lot Number: 1102857 **Product Number:** 7291

Manufacture Date: FEB 05, 2021
Expiration Date: JAN 2024

The specifications below are equivalent to the ACS Reagent Grade specifications for Sodium Hydroxide pellets, corrected for assay. There is no ACS specification for 50% (w/w) Sodium Hydroxide solution.

Name	CAS#	Grade
Water	7732-18-5	Reagent
Sodium Hydroxide	1310-73-2	Reagent

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Sulfuric Acid/Phenolphthalein)	50-52 % (w/w)	50 % (w/w)	723
Chloride (Cl)	max 0.002 %	< 0.002 %	
Heavy Metals (as Ag)	max 0.001 %	< 0.001 %	
Iron (Fe)	max 5 ppm	0.2 ppm	3126
NH_4OH Precipitate	max 0.01 %	0.00009 %	
Nickel (Ni)	max 5 ppm	< 1 ppm	3136
Nitrogen Compounds (as N)	max 5 ppm	< 5 ppm	
Phosphate (PO_4)	max 5 ppm	< 5 ppm	
Potassium (K)	max 0.01 %	0.002 %	3141
Sodium Carbonate (Na_2CO_3)	max 0.1 %	0.02 %	
Sulfate (SO_4)	max 0.001 %	< 0.001 %	

Specification	Reference
Sodium Hydroxide Solution, 50%	ASTM (D 2187 E)
Sodium Hydroxide Solution, 50%	ASTM (D 2187 F)
Sodium hydroxide stock solution, about 50%	TAPPI (T 235 cm-85)
Sodium Hydroxide Solution	ASTM (D 2187 G)
Sodium Hydroxide Solution, 50%	ASTM (D 4548)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 A)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 B)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 C)
Sodium Hydroxide Solution (50% w/w)	ASTM (D 2036 D)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
7291-1	4 L natural poly	36 months
7291-16	500 mL natural poly	36 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Israel Alamudun (02/05/2021)
Quality Control Supervisor
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

8330 LCS_00127

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230531-122014.b\05310006.D

Lims ID: C18column:B16162 Inj. Date: 31-May-2023 17:22:45

Worklist ID: 280-0122014-006 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 0B_Sonc_
4 HMX	0.5000	0.4329	86.6	65-135	66-115
8 RDX	0.5000	0.4671	93.4	68-130	69-122
9 2,4,6-Trinitrophenol	0.5000	0.5329	106.6	80-120	63-135
11 1,3,5-Trinitrobenzene	0.5000	0.5033	100.7	73-125	62-127
12 1,3-Dinitrobenzene	0.5000	0.4985	99.7	78-120	59-131
13 Nitrobenzene	0.5000	0.5038	100.8	65-134	46-144
14 3,5-Dinitroaniline	0.5000	0.4774	95.5	71-117	
15 Tetryl	0.5000	0.5414	108.3	64-128	56-131
16 Nitroglycerin	5.00	5.05	101.0	74-127	70-125
17 2,4,6-Trinitrotoluene	0.5000	0.4730	94.6	71-123	46-139
18 4-Amino-2,6-dinitrotolu	0.5000	0.4839	96.8	76-125	43-120
19 2-Amino-4,6-dinitrotolu	0.5000	0.4728	94.6	79-120	46-124
20 2,6-Dinitrotoluene	0.5000	0.5046	100.9	77-127	51-130
21 2,4-Dinitrotoluene	0.5000	0.4810	96.2	78-120	53-127
22 o-Nitrotoluene	0.5000	0.4856	97.1	70-127	37-138
23 p-Nitrotoluene	0.5000	0.4749	95.0	71-127	41-137
24 m-Nitrotoluene	0.5000	0.4840	96.8	73-125	31-140
25 PETN	5.00	5.33	106.7	73-127	67-127

Samples for Limit Group: 1, Lims Prep Method: 3535

280-176937-A-4-A 280-176990-A-1-A 280-176990-A-2-A
280-176990-A-3-A 280-176990-A-4-A 280-176990-A-5-A
280-176990-A-6-A 280-176990-A-7-A 280-176990-A-8-A
280-176990-A-9-A 280-176990-A-10-A 280-176990-A-11-A
280-176990-A-12-A 280-176990-A-13-A

Samples for Limit Group: 2, Lims Prep Method: 8330B_Sonc_10g

860-49847-E-4-A 280-176985-G-1-A

Reagent

8330 LCS_00130

Preliminary Report

Eurofins Denver
LCS, Lab Control Sample Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230809-124337.b\08090005.D
Lims ID: CH3CHOOH=acetic acid 0145
Client ID:
Sample Type: LCS
Inject. Date: 09-Aug-2023 11:47:26 ALS Bottle#: 71 Worklist Smp#: 5
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 130
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230809-124337.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 09-Aug-2023 12:27:15 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1654

Compound	Amount Added	Amount Recovered	%Rec
4 HMX	0.2500	0.2135	85.38
8 RDX	0.2500	0.2274	90.98
9 2,4,6-Trinitrophenol	0.2500	0.2458	98.32
11 1,3,5-Trinitrobenzene	0.2500	0.2537	101.48
12 1,3-Dinitrobenzene	0.2500	0.2513	100.51
13 Nitrobenzene	0.2500	0.2478	99.11
14 3,5-Dinitroaniline	0.2500	0.2394	95.77
15 Tetryl	0.2500	0.2615	104.58
16 Nitroglycerin	2.50	2.53	101.11
17 2,4,6-Trinitrotoluene	0.2500	0.2454	98.16
18 4-Amino-2,6-dinitrotoluene	0.2500	0.2490	99.59
19 2-Amino-4,6-dinitrotoluene	0.2500	0.2500	100.02
20 2,6-Dinitrotoluene	0.2500	0.2352	94.08
21 2,4-Dinitrotoluene	0.2500	0.2450	98.00
22 o-Nitrotoluene	0.2500	0.2446	97.84
23 p-Nitrotoluene	0.2500	0.2395	95.81
24 m-Nitrotoluene	0.2500	0.2452	98.08
25 PETN	2.50	2.57	102.99

Reagent

8330 LCS_00131

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230923-125749.b\09230002.D

Lims ID: 8330AcidH2O_00003 Inj. Date: 23-Sep-2023 13:53:25

Worklist ID: 280-0125749-002 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 3535	Limits 3 3535
4 HMX	0.5000	0.4292	85.8	66-115	65-135	
8 RDX	0.5000	0.4561	91.2	69-122	68-130	
9 2,4,6-Trinitrophenol	0.5000	0.5243	104.9	63-135	80-120	
11 1,3,5-Trinitrobenzene	0.5000	0.5169	103.4	62-127	73-125	
12 1,3-Dinitrobenzene	0.5000	0.5082	101.6	59-131	78-120	
13 Nitrobenzene	0.5000	0.5026	100.5	46-144	65-134	
14 3,5-Dinitroaniline	0.5000	0.4673	93.5	55-119	71-117	
15 Tetryl	0.5000	0.5859	117.2	56-131	64-128	
16 Nitroglycerin	5.00	5.08	101.5	70-125	74-127	
17 2,4,6-Trinitrotoluene	0.5000	0.4859	97.2	46-139	71-123	
18 4-Amino-2,6-dinitrotolu	0.5000	0.5082	101.6	43-120	76-125	
19 2-Amino-4,6-dinitrotolu	0.5000	0.4868	97.4	46-124	79-120	
20 2,6-Dinitrotoluene	0.5000	0.4973	99.5	51-130	77-127	
21 2,4-Dinitrotoluene	0.5000	0.5110	102.2	53-127	78-120	
22 o-Nitrotoluene	0.5000	0.4963	99.3	37-138	70-127	
23 p-Nitrotoluene	0.5000	0.4957	99.1	41-137	71-127	
24 m-Nitrotoluene	0.5000	0.5005	100.1	31-140	73-125	
25 PETN	5.00	5.13	102.6	67-127	73-127	

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

380-63263-B-1-A 570-153096-S-1-A 570-153096-R-2-A
570-153096-S-3-A 570-153096-S-4-A 570-153096-S-5-A

Samples for Limit Group: 2, Lims Prep Method: 3535

380-63150-C-1-A 380-63150-C-4-A 380-63150-C-6-A
380-63178-C-1-A 380-63178-D-3-A 380-63226-C-1-A
380-63226-C-2-A 380-63227-D-1-A 380-63227-C-3-A
380-63227-D-5-A 380-63227-C-7-A

Samples for Limit Group: 3, Lims Prep Method: 3535

280-181304-A-1-A 280-181304-A-2-A 280-181304-A-3-A

Reagent

8330 Stock_TS_00023

Agilent
Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Stock Standard
Product Number: NAIM-833E-1
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006684308
Lot Issue Date: 01-Jun-2022
Expiration Date: 30-Jun-2025

Component Name	CERTIFIED VALUES Concentration	Expanded Uncertainty	CAS#	Analyte Lot
HMX	1001	± 5 µg/mL	002691-41-0	RM06237
RDX	1001	± 5 µg/mL	000121-82-4	RM10915
1,3,5-trinitrobenzene	1001	± 5 µg/mL	000099-35-4	RM17843
m-dinitrobenzene	1002	± 5 µg/mL	000099-65-0	RM14290
nitrobenzene	1002	± 5 µg/mL	000098-95-3	RM11472
2,4,6-trinitrotoluene (TNT)	1001	± 5 µg/mL	000118-96-7	RM16204
2,4-dinitrotoluene	1002	± 5 µg/mL	000121-14-2	RM10279
tetryl	1003	± 5 µg/mL	000479-45-8	RM14651
2,6-dinitrotoluene	1003	± 5 µg/mL	000606-20-2	RM16636
2-nitrotoluene	1003	± 5 µg/mL	000088-72-2	NT01996
3-nitrotoluene	1002	± 5 µg/mL	000099-08-1	NT02212
4-nitrotoluene	1003	± 5 µg/mL	000099-99-0	NT02096
2-amino-4,6-dinitrotoluene	1003	± 5 µg/mL	035572-78-2	RM04232
4-amino-2,6-dinitrotoluene	1004	± 5 µg/mL	019406-51-0	RM04226

Matrix: acetonitrile

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Reagent

8330_NG_AUX_00006

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0192092

Description : Nitroglycerin Standard

Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	1,005.0 µg/mL	+/- 46.8850

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

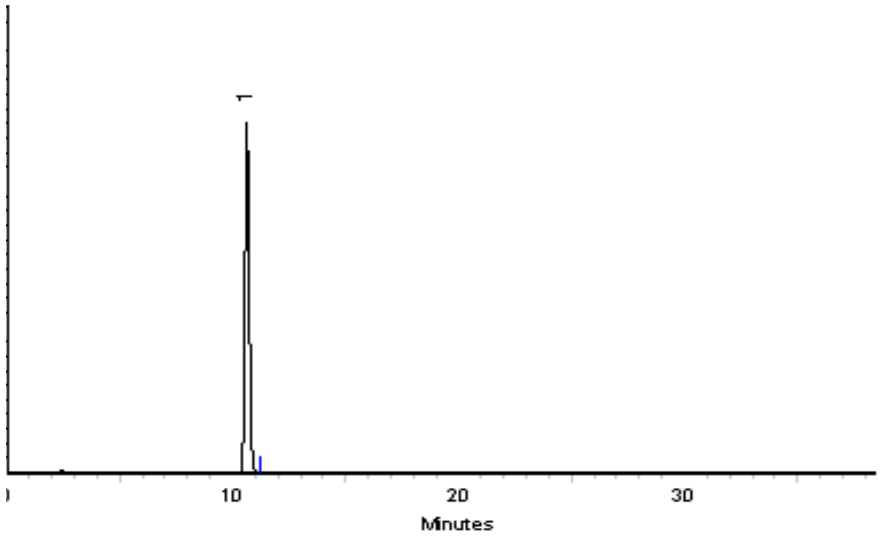
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brittany Federinko - Operations Tech I

Date Mixed: 30-Nov-2022 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Dec-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_AUX_00007

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31498 **Lot No.:** A0192092

Description : Nitroglycerin Standard

Nitroglycerin Standard 1,000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	1,005.0 µg/mL	+/- 46.8850

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

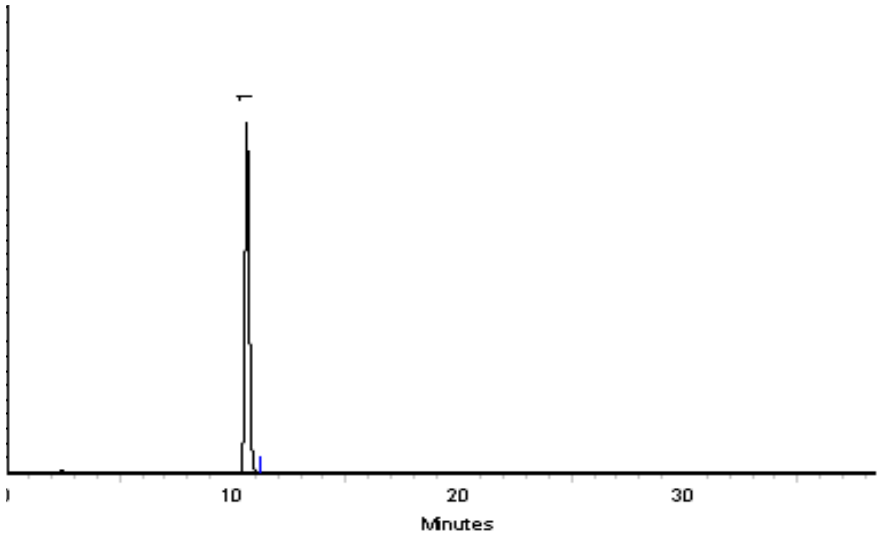
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brittany Federinko - Operations Tech I

Date Mixed: 30-Nov-2022 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 05-Dec-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00132

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3223.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0194930

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00133

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3223.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0194930

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00137

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3223.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0194930

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00138

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3223.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0194930

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00139

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3223.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3223.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0194930

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,004.0 µg/mL	+/- 236.1755

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_NG_Stk_00140

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568871 **Lot No.:** A0200560

Description : Custom Nitroglycerin Standard

Custom Nitroglycerin Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Nitroglycerin	55-63-0	200507JLM	99%	5,037.2 µg/mL	+/- 237.7424

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

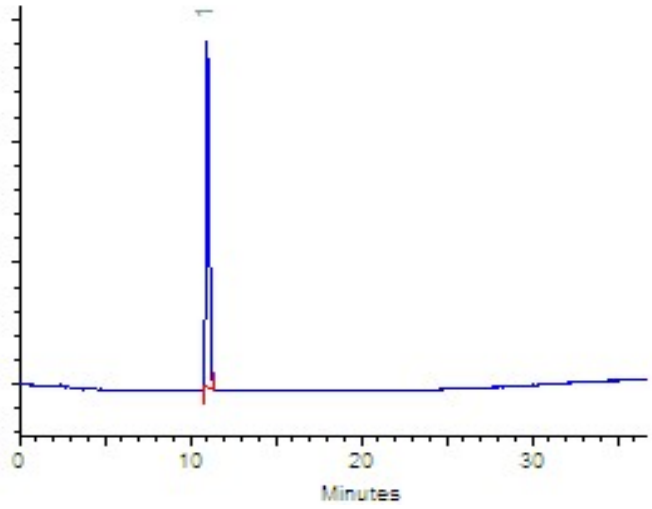
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 02-Aug-2023 **Balance Serial #** B251644995

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 04-Aug-2023

REVIEWED

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_OP_DMT_00021

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230622-122822.b\06220012.D

Lims ID: OPDMT21 Inj. Date: 22-Jun-2023 18:40:06

Worklist ID: 280-0122822-012 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535
3 TNX	0.5015	0.5101	101.7	50-150	
6 DNX	0.5005	0.5209	104.1	50-150	66-119
7 MNX	0.5835	0.6124	104.9	68-123	57-132

Samples for Limit Group: 1, Lims Prep Method: 3535

400-239200-B-1-A 400-239200-B-3-A 400-239200-B-6-A
400-239201-I-1-A 400-239201-H-2-A 400-239201-H-3-A
400-239201-H-4-A 400-239202-F-1-A 400-239202-F-2-A
400-239202-F-3-A 400-239202-F-4-A

Samples for Limit Group: 2, Lims Prep Method: 3535

280-178007-B-7-A 280-178007-B-8-A 280-178007-A-10-A
280-178007-B-11-A 280-178018-B-1-A 280-178018-A-2-A
280-178018-A-3-A 280-178018-B-4-A 280-178018-B-5-A
380-50652-K-1-A 380-50805-U-1-A

Reagent

8330_OP_DMT_00022

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230901-125089.b\09010011.D

Lims ID: DMT LCS22 Inj. Date: 01-Sep-2023 14:17:47

Worklist ID: 280-0125089-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
3 TNX	0.5005	0.4715	94.2	50-150
6 DNX	0.5020	0.4910	97.8	66-119
7 MNX	0.5855	0.5579	95.3	57-132

Samples for Limit Group: 1, Lims Prep Method: 3535

280-180213-A-1-A 280-180213-A-2-A 280-180213-A-3-A

280-180213-A-4-A 280-180213-A-5-A 280-180213-A-6-A

280-180213-A-7-A 280-180213-A-8-A 280-180213-A-9-A

280-180213-A-10-A 280-180213-A-11-A

Reagent

8330_OP_DMT_00024

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X5\20231004-126147.b\10040011.D

Lims ID: 8330 DMT 24 Inj. Date: 04-Oct-2023 16:40:24

Worklist ID: 280-0126147-011 Instrument: CHHPLC_X5

Method: 8330_X5_Luna

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
3 TNX	0.5005	0.4734	94.6	50-150
4 DNX	0.5020	0.4894	97.5	50-150
6 MNX	0.5855	0.5686	97.1	50-150

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-182112-A-2-D 280-182112-A-3-B 280-182112-A-4-B

280-182114-A-6-B

Reagent

8330_PETN_Stk_00137

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0188550

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	PETN	5,000.0 µg/mL	+/- 46.4973 µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 276.2417 µg/mL	Unstressed
	Purity 99%		+/- 321.4093 µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

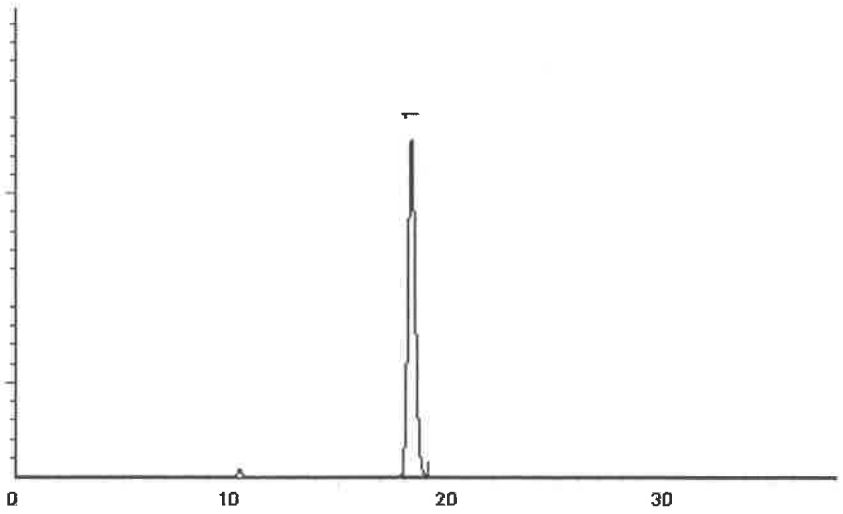
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 15-Aug-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Aug-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_PETN_Stk_00138

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0188550

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	PETN	5,000.0 µg/mL	+/- 46.4973 µg/mL	Gravimetric
	CAS # 78-11-5 (Lot 051108JLM)		+/- 276.2417 µg/mL	Unstressed
	Purity 99%		+/- 321.4093 µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

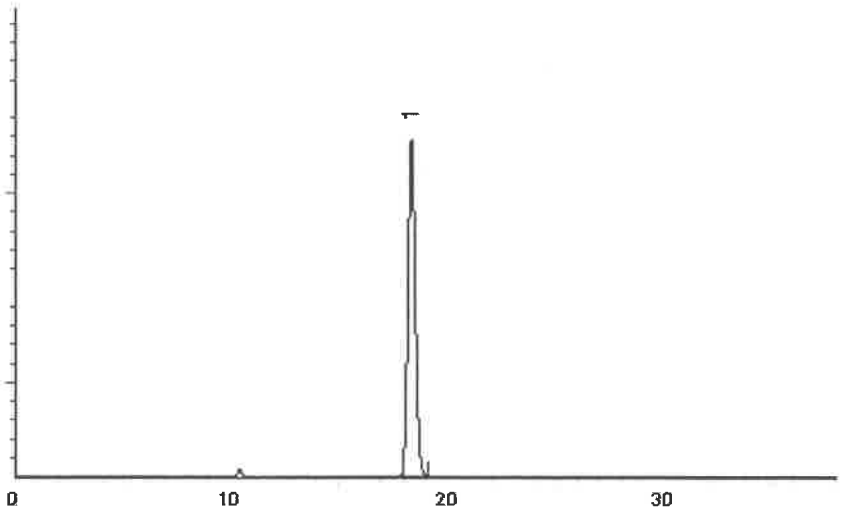
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Matt Fragassi - Mix Technician

Date Mixed: 15-Aug-2022 **Balance:** 1128353505

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Aug-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330_PETN_Stk_00141

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0197735

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,020.0 µg/mL	+/- 236.9306

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

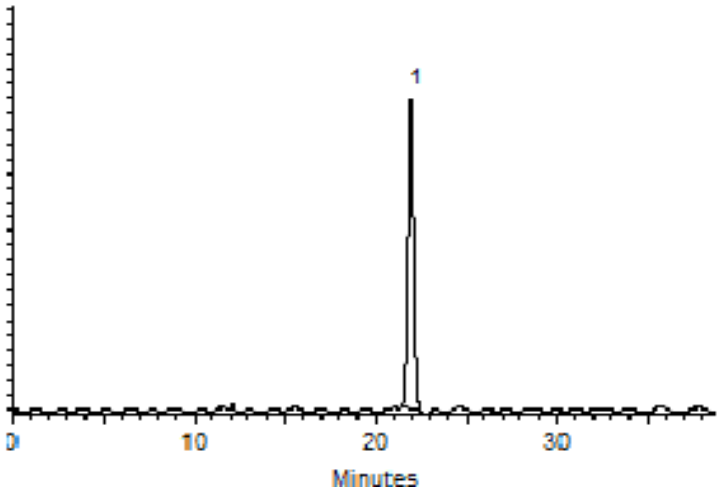
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

John Friedline - Operations Technician I

Date Mixed: 04-May-2023 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-May-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00144

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0197735

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,020.0 µg/mL	+/- 236.9306

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

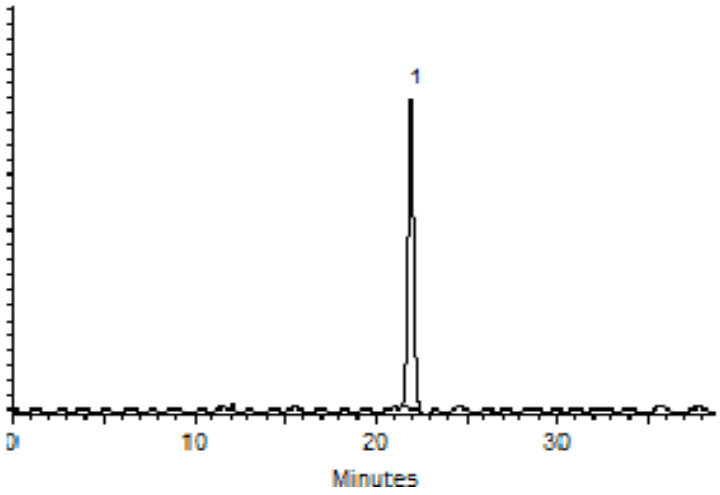
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

John Friedline - Operations Technician I

Date Mixed: 04-May-2023 **Balance Serial #** 1127510105

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-May-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00145

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0198972

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

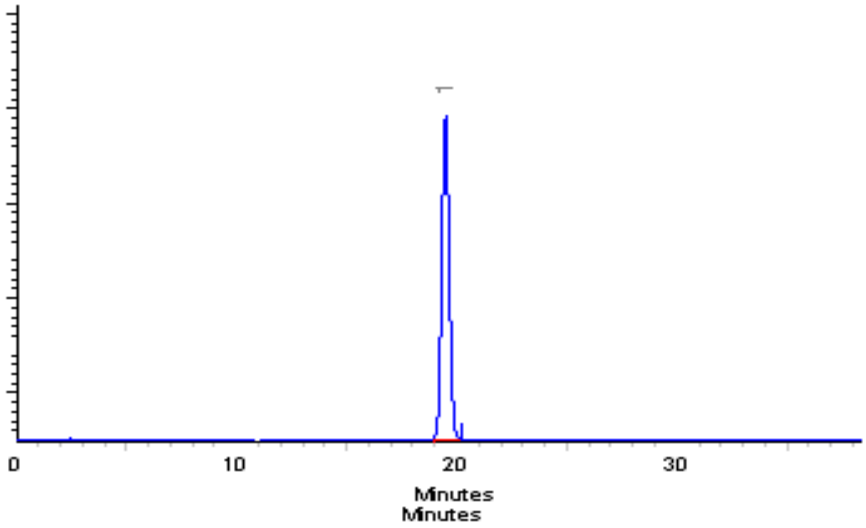
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Jun-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN_Stk_00146

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 568872 **Lot No.:** A0198972

Description : Custom PETN Standard

Custom PETN Standard 5,000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	PETN	78-11-5	051108JLM	99%	5,012.0 µg/mL	+/- 236.5531

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile

CAS # 75-05-8

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

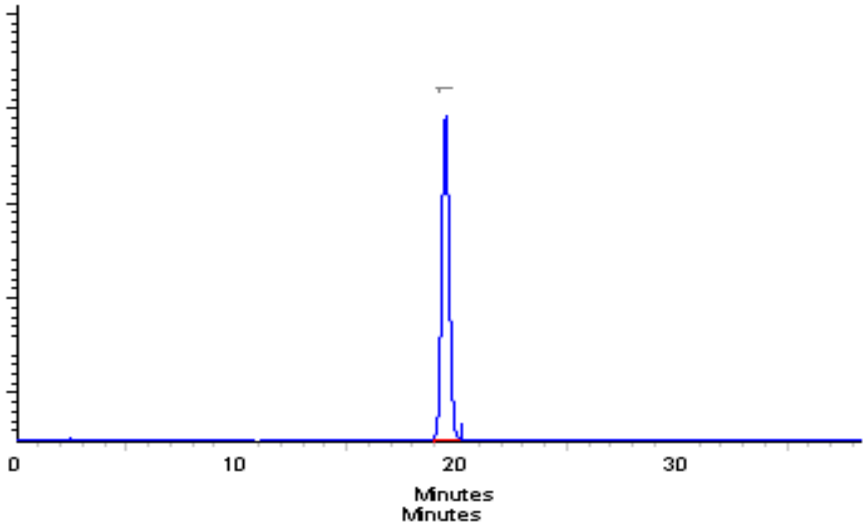
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bryan Snyder - Operations Tech I

Date Mixed: 14-Jun-2023 **Balance Serial #** 1128342314

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 16-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN1000_00012

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31600 **Lot No.:** A0194158

Description : PETN Standard

PETN Standard 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)
1	PETN	78-11-5	051108JLM	99%	1,009.0 µg/mL	+/- 47.0716

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330_PETN1000_00013

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31600 **Lot No.:** A0194158

Description : PETN Standard

PETN Standard 1000µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2028 **Storage:** 10°C or colder

Handling: Sonicate prior to use. **Ship:** Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)
1	PETN	78-11-5	051108JLM	99%	1,009.0 µg/mL	+/- 47.0716

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

833035DNAStk_00055

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 222011692-01
Solvent: Methanol (50%)
Acetonitrile (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Sep 6, 2022
Expiration: Oct 6, 2023
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.6	100.6

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

833035DNAStk_00056

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-4
Description: 3,5-Dinitroaniline
Lot: 223041214
Solvent: Methanol (50%)
Acetonitrile (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Apr 14, 2023
Expiration: May 14, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
3,5-Dinitroaniline	618-87-1	100.0	100.8	100.8

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

[2] All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

[3] Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

8330DiaminLCS_00058

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230608-122323.b\0608DIA58.D

Lims ID: DiaminoLCS58 Inj. Date: 08-Jun-2023 15:03:39

Worklist ID: 280-0122323-061 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
2 2,6-diamino-4-nitrotolu	0.5000	0.4653	93.1	10-150
5 2,4-diamino-6-nitrotolu	0.5000	0.4588	91.8	10-150

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-177189-A-2-B
280-177189-A-5-B
280-177189-A-8-B
280-177189-A-11-B
280-177191-A-1-B
280-177191-A-2-B
280-177191-A-3-B
280-177191-A-4-B
280-177191-A-5-B
280-177191-A-6-B
280-177191-A-7-B
280-177191-A-8-D
280-177191-A-9-B
280-177191-A-10-B
280-177191-A-11-B
280-177191-A-12-B
280-177191-A-13-B
280-177191-A-14-B
280-177191-A-15-C

Reagent

8330DiaminLCS_00059

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230706-123269.b\07060004.D

Lims ID: CaCl2_Sol_00078 Inj. Date: 06-Jul-2023 11:53:27

Worklist ID: 280-0123269-004 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535
2 2,6-diamino-4-nitrotolu	0.5000	0.4704	94.1	72-122
5 2,4-diamino-6-nitrotolu	0.5000	0.4639	92.8	68-122

Samples for Limit Group: 1, Lims Prep Method: 3535

280-178330-B-1-A	280-178330-C-2-A	280-178330-B-3-A
280-178330-C-5-A	280-178330-B-6-A	280-178330-B-7-A
280-178330-C-8-A	280-178330-B-9-A	280-178330-B-10-A
280-178330-B-11-A	280-178330-C-12-A	280-178330-B-13-A
280-178330-B-14-A	280-178330-C-15-A	280-178330-C-16-A
280-178330-C-17-A	280-178330-B-18-A	

Reagent

8330DiaminLCS_00060

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230728-123981.b\07280011.D

Lims ID: 8330DiaLCS60 Inj. Date: 28-Jul-2023 16:13:22

Worklist ID: 280-0123981-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
2 2,6-diamino-4-nitrotolu	0.5000	0.4808	96.2	10-150
5 2,4-diamino-6-nitrotolu	0.5000	0.4712	94.2	10-150

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-179122-A-3-F
680-237803-D-8-B
680-237803-G-9-B
680-237803-G-10-B
680-237803-G-11-B
680-237803-G-12-B
680-237803-G-13-B
680-237803-C-14-B
680-237803-F-15-B
680-237803-G-16-B
680-237803-G-17-B
680-237803-G-18-B
680-237803-G-19-B
680-237803-G-20-D
680-237803-C-21-B
680-237803-F-22-B
680-237803-F-23-B
680-237803-F-24-B
680-237803-F-25-B
680-237803-F-26-B
680-237803-F-27-B
680-237800-D-1-B
680-237800-G-2-B
680-237800-G-3-F
680-237800-G-4-B

Reagent

8330LCSMix1_00142

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0183848

Description : 8330 Calibration Mix #1

8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2027 **Storage:** 10°C or colder

Ship: Ambient

C E R T I F I E D V A L U E S

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	HMX		1,008.0 µg/mL	+/- 5.9872 µg/mL		Gravimetric
	CAS # 2691-41-0	(Lot 210324JLM)		+/- 55.2213 µg/mL		Unstressed
	Purity 99%			+/- 64.3934 µg/mL		Stressed
2	RDX		1,007.0 µg/mL	+/- 5.9813 µg/mL		Gravimetric
	CAS # 121-82-4	(Lot 080228JLM)		+/- 55.1665 µg/mL		Unstressed
	Purity 99%			+/- 64.3295 µg/mL		Stressed
3	1,3,5-Trinitrobenzene		1,008.0 µg/mL	+/- 5.9872 µg/mL		Gravimetric
	CAS # 99-35-4	(Lot A6TDK)		+/- 55.2213 µg/mL		Unstressed
	Purity 99%			+/- 64.3934 µg/mL		Stressed
4	1,3-Dinitrobenzene		1,006.0 µg/mL	+/- 5.9753 µg/mL		Gravimetric
	CAS # 99-65-0	(Lot 1-DXX-24-1)		+/- 55.1117 µg/mL		Unstressed
	Purity 99%			+/- 64.2657 µg/mL		Stressed
5	Nitrobenzene		1,007.0 µg/mL	+/- 5.9813 µg/mL		Gravimetric
	CAS # 98-95-3	(Lot 10224044)		+/- 55.1665 µg/mL		Unstressed
	Purity 99%			+/- 64.3295 µg/mL		Stressed
6	2,4,6-Trinitrotoluene		1,002.0 µg/mL	+/- 5.9516 µg/mL		Gravimetric
	CAS # 118-96-7	(Lot D11836200)		+/- 54.8926 µg/mL		Unstressed
	Purity 99%			+/- 64.0101 µg/mL		Stressed
7	2,4-Dinitrotoluene		1,005.0 µg/mL	+/- 5.9694 µg/mL		Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)		+/- 55.0569 µg/mL		Unstressed
	Purity 99%			+/- 64.2018 µg/mL		Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

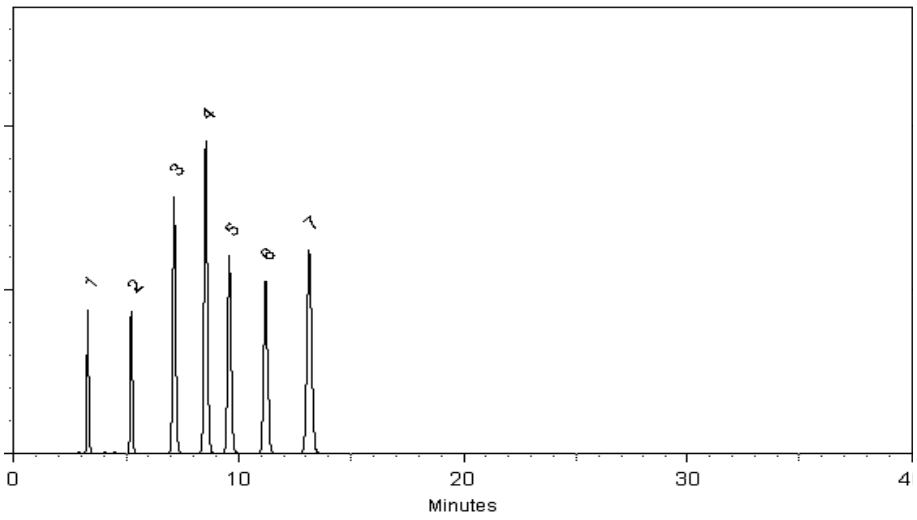
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 08-Apr-2022 **Balance:** B251644995

Fang-Yun Lo - QC Analyst

Date Passed: 13-Apr-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

8330LCSMix1_00145

4 vials Rec. 10/6/20
8330 Cali mix 1

RESTEK CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0163590

Description : 8330 Calibration Mix #1

8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	HMX		1,002.5 µg/mL	+/- 5.9548	µg/mL	Gravimetric
	CAS # 2691-41-0	(Lot 191003JLM)		+/- 54.9222	µg/mL	Unstressed
	Purity 98%			+/- 64.0446	µg/mL	Stressed
2	RDX		1,005.0 µg/mL	+/- 5.9694	µg/mL	Gravimetric
	CAS # 121-82-4	(Lot 080228JLM)		+/- 55.0569	µg/mL	Unstressed
	Purity 99%			+/- 64.2018	µg/mL	Stressed
3	1,3,5-Trinitrobenzene		1,005.0 µg/mL	+/- 5.9694	µg/mL	Gravimetric
	CAS # 99-35-4	(Lot A6TDK)		+/- 55.0569	µg/mL	Unstressed
	Purity 99%			+/- 64.2018	µg/mL	Stressed
4	1,3-Dinitrobenzene		1,007.0 µg/mL	+/- 5.9813	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBN4329V)		+/- 55.1665	µg/mL	Unstressed
	Purity 99%			+/- 64.3295	µg/mL	Stressed
5	Nitrobenzene		1,000.0 µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBJ3622)		+/- 54.7830	µg/mL	Unstressed
	Purity 99%			+/- 63.8824	µg/mL	Stressed
6	2,4,6-Trinitrotoluene		1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 118-96-7	(Lot 5737200)		+/- 55.1117	µg/mL	Unstressed
	Purity 99%			+/- 64.2657	µg/mL	Stressed
7	2,4-Dinitrotoluene		1,009.0 µg/mL	+/- 5.9932	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)		+/- 55.2761	µg/mL	Unstressed
	Purity 99%			+/- 64.4573	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

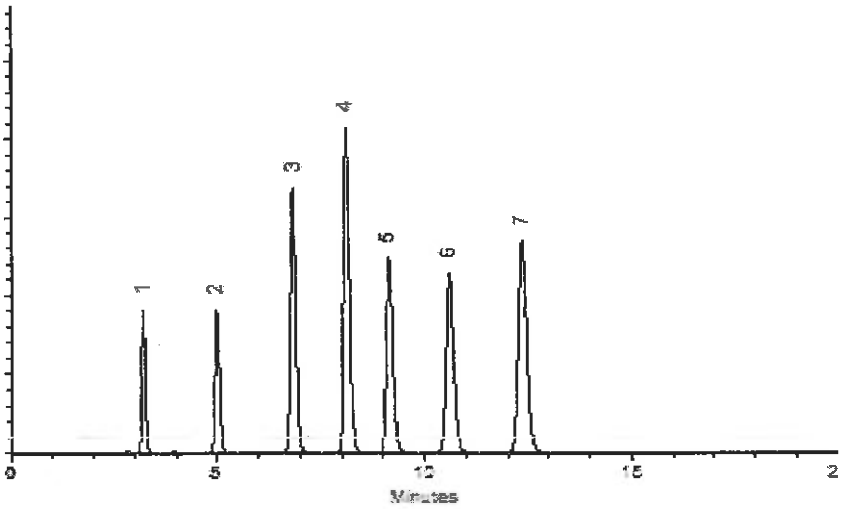
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover - Operations Technician I

Date Mixed: 17-Aug-2020 **Balance:** 1128353505

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 19-Aug-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

8330LCSMix1_00146

4 vials Rec. 10/6/20
8330 Cali mix 1

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31450 **Lot No.:** A0163590

Description : 8330 Calibration Mix #1

8330 Calibration Std #1 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2025 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	HMX		1,002.5 µg/mL	+/- 5.9548	µg/mL	Gravimetric
	CAS # 2691-41-0	(Lot 191003JLM)		+/- 54.9222	µg/mL	Unstressed
	Purity 98%			+/- 64.0446	µg/mL	Stressed
2	RDX		1,005.0 µg/mL	+/- 5.9694	µg/mL	Gravimetric
	CAS # 121-82-4	(Lot 080228JLM)		+/- 55.0569	µg/mL	Unstressed
	Purity 99%			+/- 64.2018	µg/mL	Stressed
3	1,3,5-Trinitrobenzene		1,005.0 µg/mL	+/- 5.9694	µg/mL	Gravimetric
	CAS # 99-35-4	(Lot A6TDK)		+/- 55.0569	µg/mL	Unstressed
	Purity 99%			+/- 64.2018	µg/mL	Stressed
4	1,3-Dinitrobenzene		1,007.0 µg/mL	+/- 5.9813	µg/mL	Gravimetric
	CAS # 99-65-0	(Lot BCBN4329V)		+/- 55.1665	µg/mL	Unstressed
	Purity 99%			+/- 64.3295	µg/mL	Stressed
5	Nitrobenzene		1,000.0 µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 98-95-3	(Lot SHBJ3622)		+/- 54.7830	µg/mL	Unstressed
	Purity 99%			+/- 63.8824	µg/mL	Stressed
6	2,4,6-Trinitrotoluene		1,006.0 µg/mL	+/- 5.9753	µg/mL	Gravimetric
	CAS # 118-96-7	(Lot 5737200)		+/- 55.1117	µg/mL	Unstressed
	Purity 99%			+/- 64.2657	µg/mL	Stressed
7	2,4-Dinitrotoluene		1,009.0 µg/mL	+/- 5.9932	µg/mL	Gravimetric
	CAS # 121-14-2	(Lot MKAA0690V)		+/- 55.2761	µg/mL	Unstressed
	Purity 99%			+/- 64.4573	µg/mL	Stressed

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

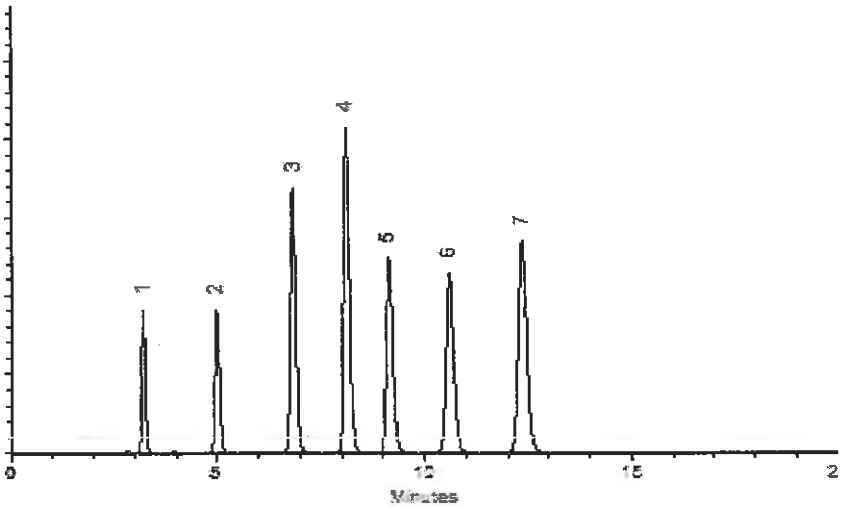
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dalton Stover - Operations Technician I

Date Mixed: 17-Aug-2020 **Balance:** 1128353505

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 19-Aug-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

Reagent

8330LCSmix2_00041

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0192237

Description : 8330 Calibration Mix #2

8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Tetryl	479-45-8	211028JLM	99%	1,006.0 µg/mL	+/- 46.9317
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,004.0 µg/mL	+/- 46.8384
3	2-Amino-4,6-dinitrotoluene	35572-78-2	A210503-001	99%	1,006.0 µg/mL	+/- 46.9317
4	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,004.0 µg/mL	+/- 46.8384
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,008.0 µg/mL	+/- 47.0250
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,002.0 µg/mL	+/- 46.7451
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,008.0 µg/mL	+/- 47.0250

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

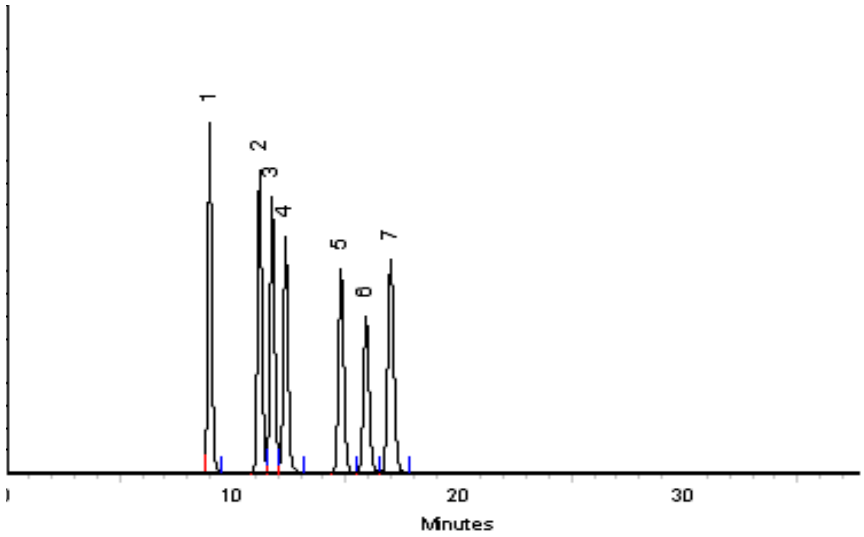
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

John Friedline - Operations Technician I

Date Mixed: 05-Dec-2022 **Balance Serial #** 1128342314

Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Dec-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330LCSmix2_00043

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0192237

Description : 8330 Calibration Mix #2

8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Tetryl	479-45-8	211028JLM	99%	1,006.0 µg/mL	+/- 46.9317
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,004.0 µg/mL	+/- 46.8384
3	2-Amino-4,6-dinitrotoluene	35572-78-2	A210503-001	99%	1,006.0 µg/mL	+/- 46.9317
4	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,004.0 µg/mL	+/- 46.8384
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,008.0 µg/mL	+/- 47.0250
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,002.0 µg/mL	+/- 46.7451
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,008.0 µg/mL	+/- 47.0250

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

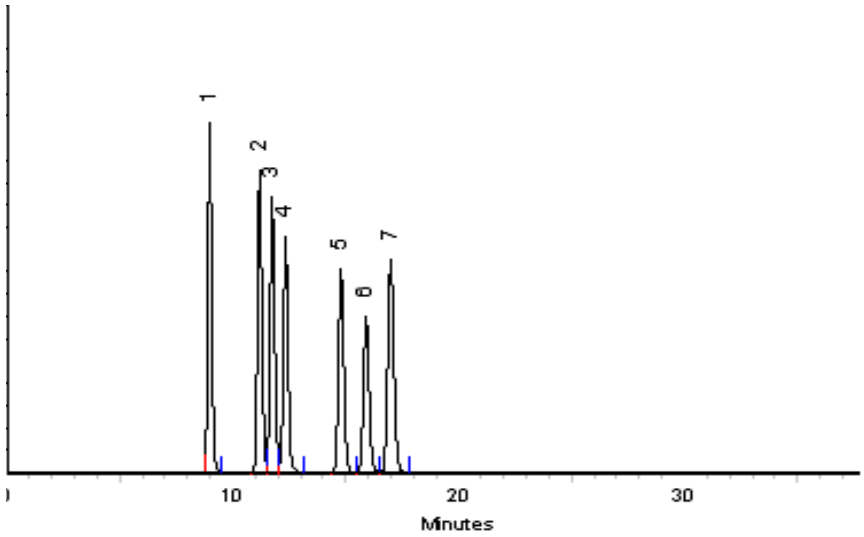
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

John Friedline - Operations Technician I

Date Mixed: 05-Dec-2022 **Balance Serial #** 1128342314

Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Dec-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330LCSmix2_00044

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31451 **Lot No.:** A0192237

Description : 8330 Calibration Mix #2

8330 Calibration Std #2 1000µg/mL, Acetonitrile, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	Tetryl	479-45-8	211028JLM	99%	1,006.0 µg/mL	+/- 46.9317
2	4-Amino-2,6-dinitrotoluene	19406-51-0	ER070908-01	99%	1,004.0 µg/mL	+/- 46.8384
3	2-Amino-4,6-dinitrotoluene	35572-78-2	A210503-001	99%	1,006.0 µg/mL	+/- 46.9317
4	2,6-Dinitrotoluene	606-20-2	BCCG1833	99%	1,004.0 µg/mL	+/- 46.8384
5	2-Nitrotoluene	88-72-2	BCBZ7826	99%	1,008.0 µg/mL	+/- 47.0250
6	4-Nitrotoluene	99-99-0	BCCB0171	99%	1,002.0 µg/mL	+/- 46.7451
7	3-Nitrotoluene	99-08-1	07329LG	99%	1,008.0 µg/mL	+/- 47.0250

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetonitrile
CAS # 75-05-8
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

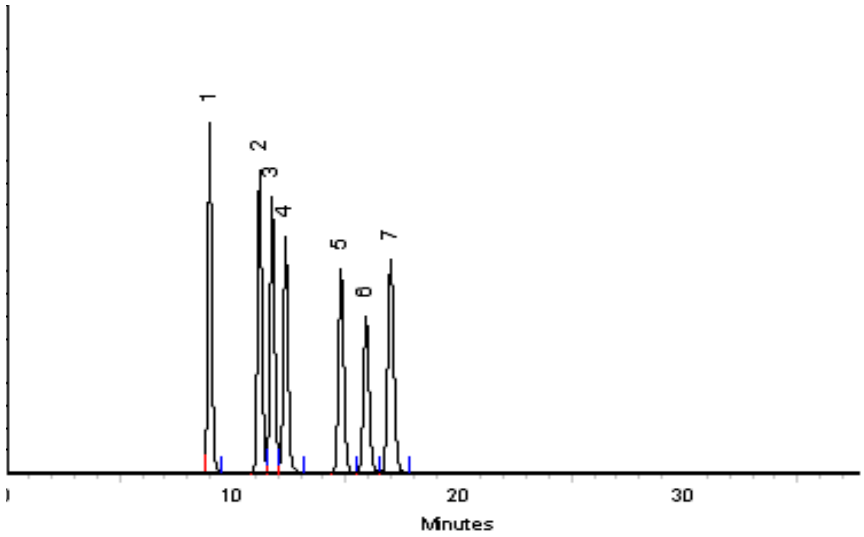
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
5µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

John Friedline - Operations Technician I

Date Mixed: 05-Dec-2022 **Balance Serial #** 1128342314

Christie Mills - Operations Tech II - ARM QC

Date Passed: 07-Dec-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330PAStkPS_00072

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 218031154-04
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Aug 30, 2022
Expiration: Sep 30, 2024
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (HPLC)	Prepared Concentration² (µg/mL)	Certified Analyte Concentration¹ (µg/mL)
Picric acid	88-89-1	99.1	100.1	99.2

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

² All weights are traceable through NIST, Test No. 822-275872-11

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

Reagent

8330PAStkPS_00073

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-3
Description: Picric acid
Lot: 223031306
Solvent: Acetonitrile (50%)
Methanol (50%)
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: Mar 23, 2023
Expiration: Apr 23, 2025
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity[3] %	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
Picric acid	88-89-1	99.1	100.4	99.5

This Certified Reference Material was verified in accordance with ISO/IEC 17025 (AT-1339) and ISO 17034 (AR-1463)

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

[2] All weights are traceable through NIST, Test No. 684/291344-18 & 684/292805-19

[3] Purity/Identity determined by one or more of the following methods: GC/MS, LC/MS, NMR, FTIR, Melting Point.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

Reagent

8330Surrogate_00146

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230622-122822.b\06220011.D

Lims ID: 8330Surr146 Inj. Date: 22-Jun-2023 18:17:12

Worklist ID: 280-0122822-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 3535	Limits 2 3535
$ 10 1,2-Dinitrobenzene	0.5000	0.5234	104.7	63-127	83-119

Samples for Limit Group: 1, Lims Prep Method: 3535

400-239200-B-1-A	400-239200-B-3-A	400-239200-B-6-A
400-239201-I-1-A	400-239201-H-2-A	400-239201-H-3-A
400-239201-H-4-A	400-239202-F-1-A	400-239202-F-2-A
400-239202-F-3-A	400-239202-F-4-A	

Samples for Limit Group: 2, Lims Prep Method: 3535

280-178007-B-7-A	280-178007-B-8-A	280-178007-A-10-A
280-178007-B-11-A	280-178018-B-1-A	280-178018-A-2-A
280-178018-A-3-A	280-178018-B-4-A	280-178018-B-5-A
380-50652-K-1-A	380-50805-U-1-A	

Reagent

8330Surrogate_00150

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20230822-124734.b\08220011.D

Lims ID: Surr150 Inj. Date: 22-Aug-2023 20:04:51

Worklist ID: 280-0124734-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_	Limits 2 0B_Sonc_
$ 10 1,2-Dinitrobenzene	0.2500	0.2372	94.9	78-119	83-122

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

680-238231-F-10-B

Samples for Limit Group: 2, Lims Prep Method: 8330B_Sonc_10g

280-179677-A-20-B 280-179677-A-23-B

Reagent

8330Surrogate_00151

Preliminary Report

Eurofins Denver

LCS, Lab Control Sample Report

Sample Path: \\chromfs\Denver\ChromData\CHHPLC_X\20231005-126201.b\10050011.D

Lims ID: 8330 Surr 151 Inj. Date: 05-Oct-2023 18:02:26

Worklist ID: 280-0126201-011 Instrument: CHHPLC_X3

Method: 8330_X3

Compound	Amount Added	Amount Recovered	%Rec	Limits 1 0B_Sonc_
$ 10 1,2-Dinitrobenzene	0.5000	0.4986	99.7	63-127

Samples for Limit Group: 1, Lims Prep Method: 8330B_Sonc_10g

280-182103-B-6-A 280-182103-B-7-A 280-182103-A-10-A

280-182103-A-11-A 280-182103-B-12-A 280-182103-B-13-A

Reagent

8330SurrStkSS_00279

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0194831

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 29, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

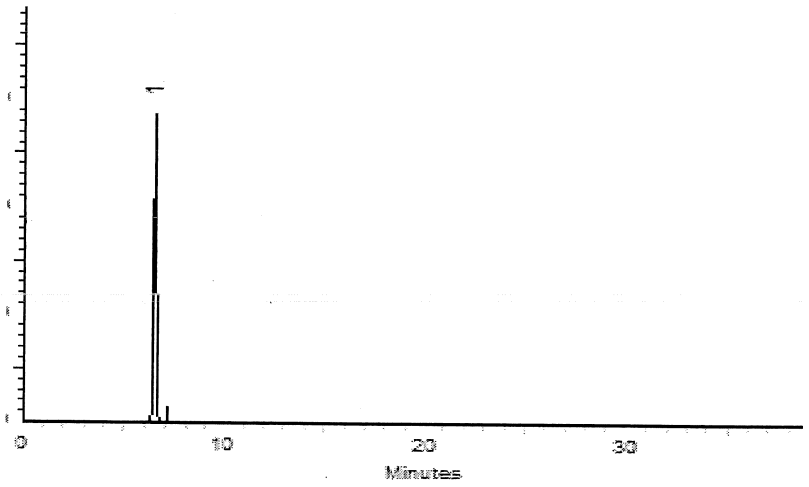
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00280

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0194831

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 29, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	MKCH6067	99%	1,004.8 µg/mL	+/- 56.4585

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

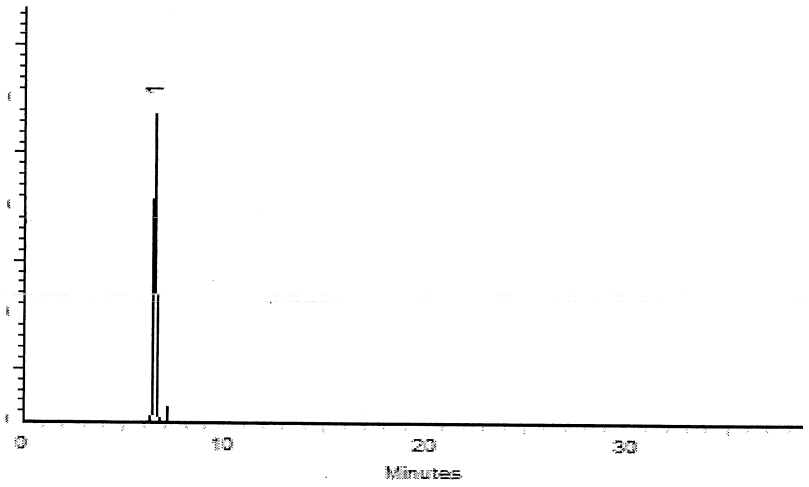
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Stacey Wanner - Operations Technician I **Date Mixed:** 20-Feb-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC **Date Passed:** 21-Feb-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00285

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0197062

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	STBK9056	99%	1,001.6 µg/mL	+/- 56.2801

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

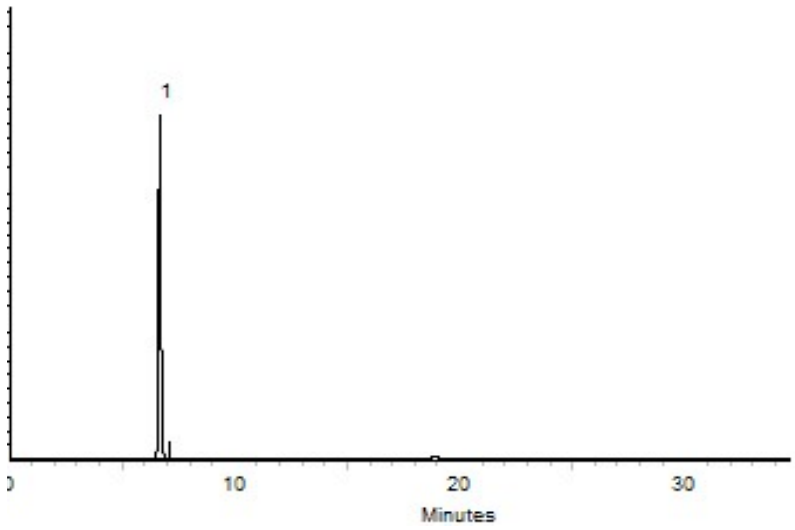
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 17-Apr-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Apr-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00292

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0197062

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	STBK9056	99%	1,001.6 µg/mL	+/- 56.2801

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

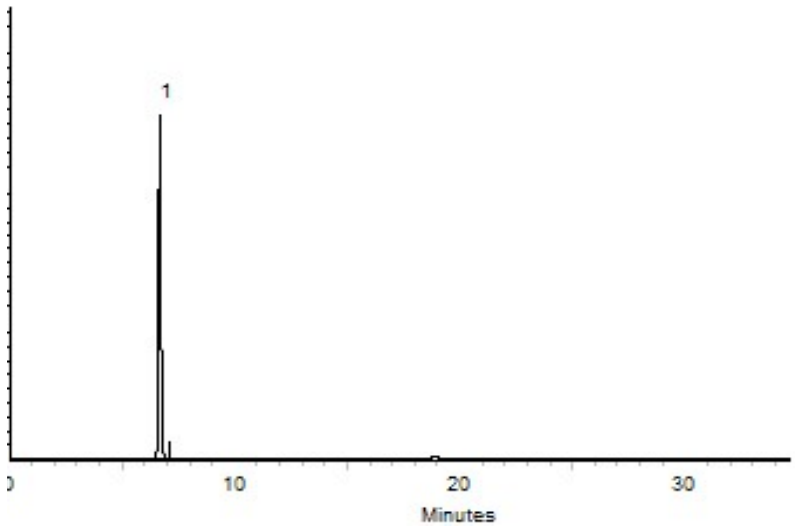
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Penelope Riglin - Operations Tech I

Date Mixed: 17-Apr-2023 **Balance Serial #** 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 19-Apr-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00293

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

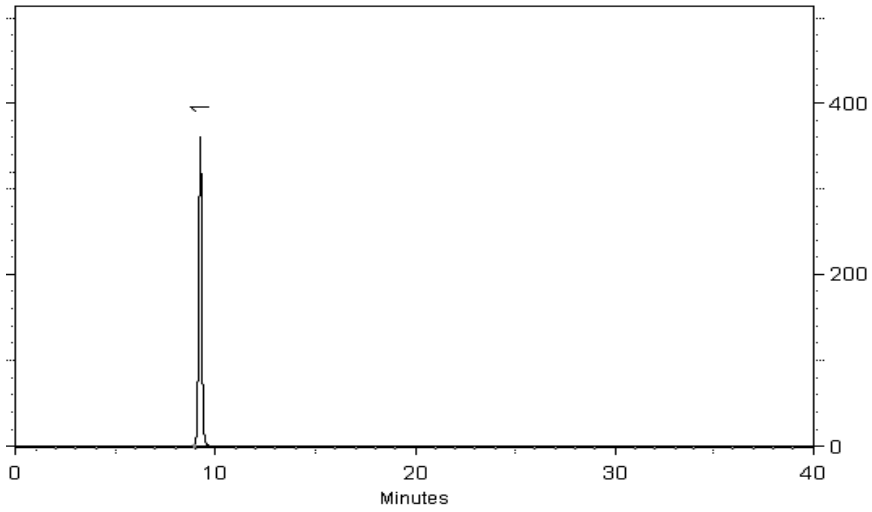
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00294

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

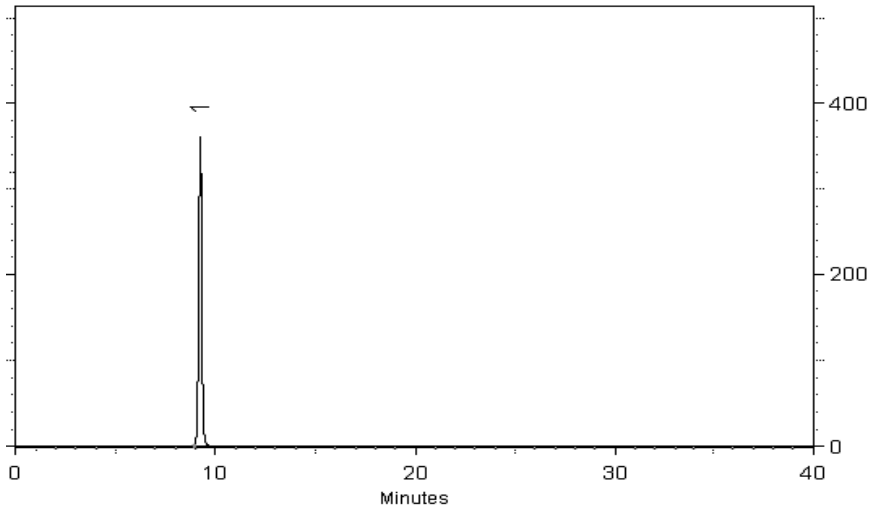
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00295

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

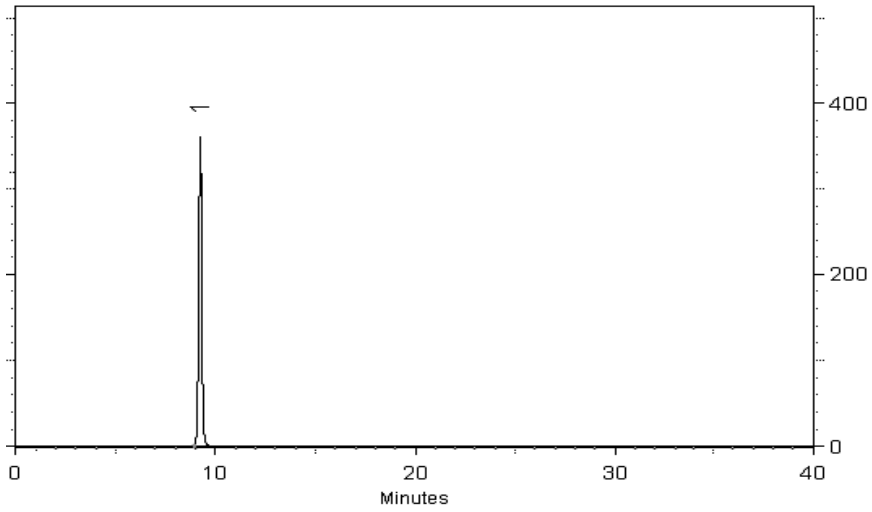
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00296

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

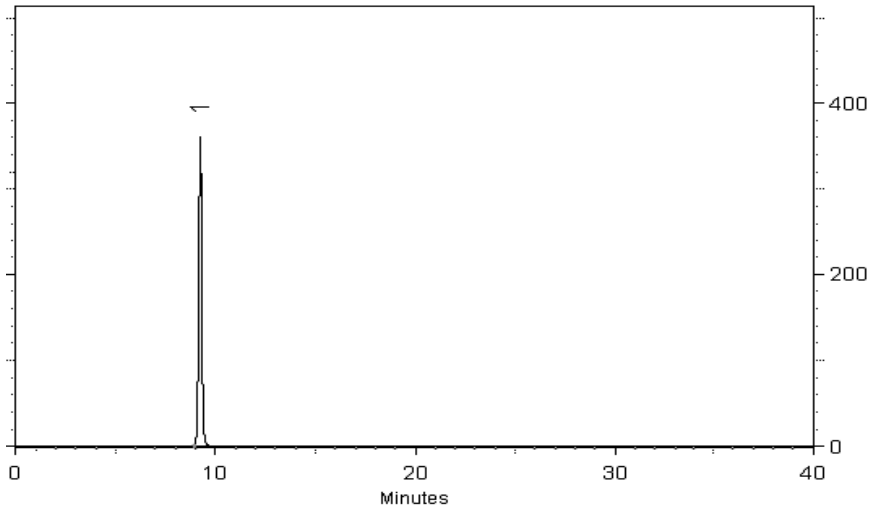
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00297

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

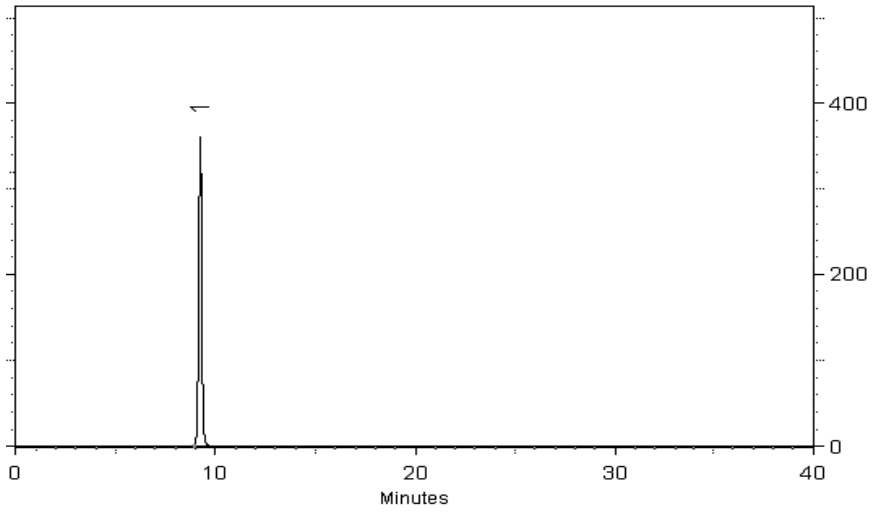
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00298

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol

CAS # 67-56-1

Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

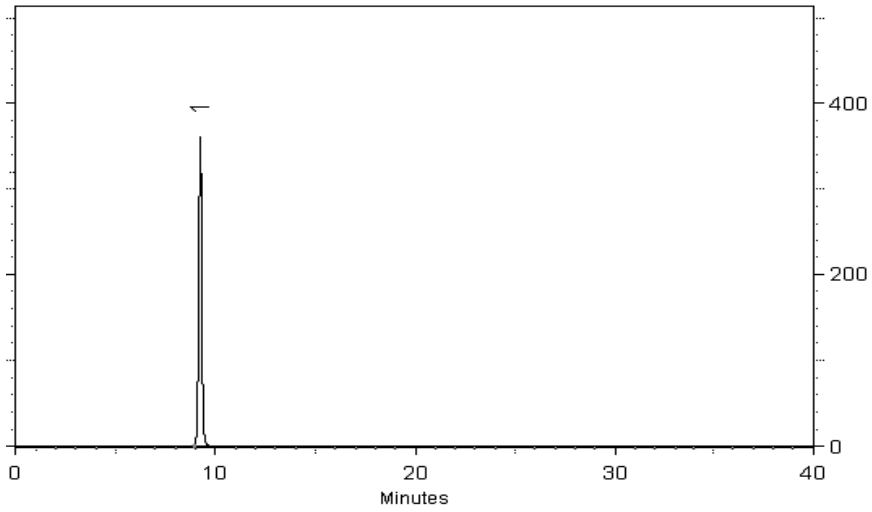
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00299

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

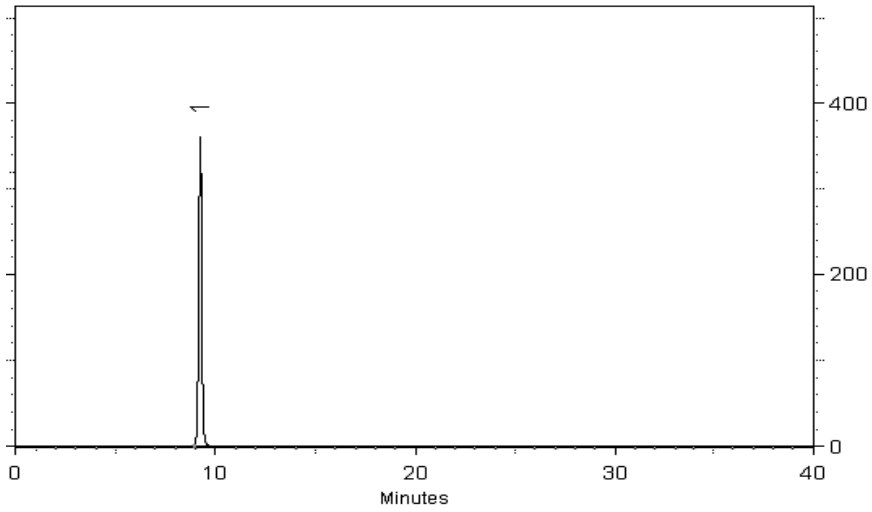
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStkSS_00300

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31453 **Lot No.:** A0198799

Description : 8330 Surrogate Mix

8330 Surrogate Mix 1000 µg/mL, Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2028 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2-Dinitrobenzene	528-29-0	RP230428	99%	1,002.0 µg/mL	+/- 56.3012

* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Quality Confirmation Test

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

Flow Rate:
1.0 ml/min.

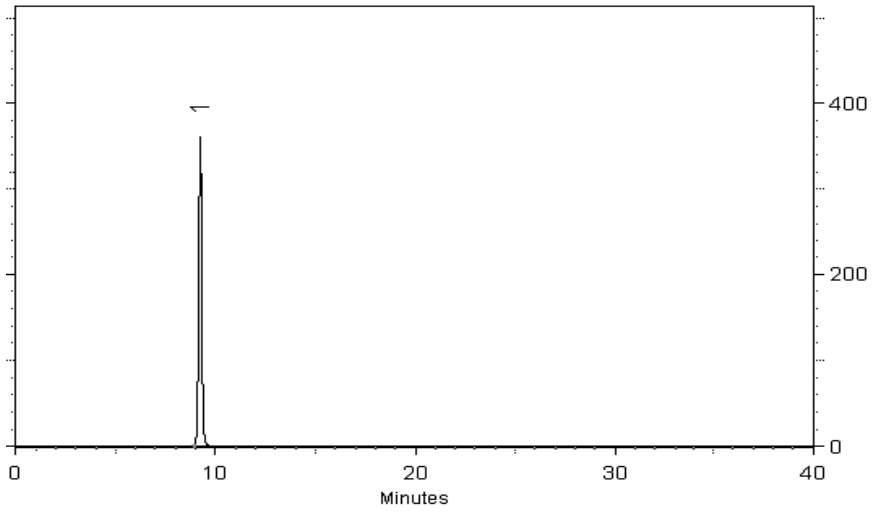
Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm

Inj. Vol
2.0µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Laith Clemente - Operations Technician I

Date Mixed: 08-Jun-2023 **Balance Serial #** B707717271

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Jun-2023

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/µECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ uncertainty} = k\sqrt{u^2_{gravimetric} + u^2_{homogeneity} + u^2_{storage\ stability} + u^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampuls. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Reagent

8330SurrStock_00172

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-SS
Description: 1,2-Dinitrobenzene
Lot: 219051500
Solvent: Methanol
Hazards: *Refer to SDS for complete safety information*

Signal Word: Danger

Date Certified: May 22, 2019
Expiration: May 22, 2029
Sample Size: 1 mL
Components: 1
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ilac-MRA

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
1,2-Dinitrobenzene	528-29-0	100.0	1002	1002

This Certified Reference Material was verified in accordance with ISO/IEC 17025

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 7/20

Reagent

Alk stk std_00023

spex certiprep

ACCREDITED
Reference Materials Producer
Cert# 2495.01

SPEXertificate®

Certificate of Reference Material

ilac-MRA ACCREDITED
Chemical Testing
Cert# 2495.02

Catalog Number: VTACO-3 **Lot No.:** 2-106BT

Description: Custom Standard

Matrix: H_2O

This Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for conductance meters and conductivity cells used in water purity measurements. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

The CRM is prepared gravimetrically using high purity sodium carbonate (Na_2CO_3) Lot# H04155 and ASTM Type I water, using Class A laboratory ware to give precise concentration.

Certified Value:

Analyte:	Na_2CO_3
Alkalinity:	50,000 µg/mL as $CaCO_3$
Uncertainty:	±500 µg/mL
Traceable to:	Standard made from NIST SRM # 351a

Balances are calibrated regularly with weight sets traceable to NIST#s 32856, 32867. This CRM is guaranteed stable to ±1% of the certified concentration inclusive of uncertainty of measurements and other components such as homogeneity, long and short-term stability for a period of one year from the date of certification. This guarantee is valid only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: OCT - - 2022

Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

Page 1 of 2
Rev. 0

© 2021 | Spex, an Antylia Scientific company.

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO/IEC 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials – Contents of certificates, labels, and accompanying documentation
- ISO Guide 35: Reference Materials – Guidance for characterization and assessment of homogeneity and stability
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:
All analytes and matrix materials are obtained and verified by Spex CertiPrep from pre-qualified vendors as per ISO 9001, ISO/IEC 17025 and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of Spex CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at USMet-CRMSales@antylia.com.

Instructions for Use:
Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:
Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:
The homogeneity of the CRM has been confirmed by procedures consistent with ISO/IEC 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:
The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:
- $X = x \pm U$ where X = certified value, U = expanded uncertainty, x = property value
- $U = ku_c$ where k = 2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:
All certified values reported were derived from the Certification Report, Spex CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at USMet-CRMSales@antylia.com.

Legal Notice:
Spex CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against Spex CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall Spex CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

spex® an antylia scientific company

203 Norcross Avenue • Metuchen, NJ 08840
www.spex.com • Email: USMet-CRMSales@antylia.com
Phone: +1.800.LAB.SPEX • +1.732.549.7144 • Fax: +1.732.603.9647

Reagent

IC BR ICV_00024

RICCA CHEMICAL COMPANY®

448 West Fork Dr
Arlington, TX 76012
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Bromide Standard, 1000 ppm Br^-

Lot Number: 1204B86 **Product Number:** 1180

Manufacture Date: APR 26, 2022
Expiration Date: OCT 2023

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Bromide	7647-15-6	High Purity

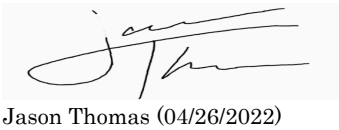
Test	Specification	Result
Appearance	Colorless liquid	Passed
Bromide (Br)	995-1005 ppm	1000 ppm

Specification	Reference
Bromide Solution, Standard (1 mL = 1 mg Br^-)	ASTM (D 3869 D)
Standard Bromide Solution, 1000 mg/L	APHA (4110 B)
Bromide Stock Solution (1.00 mL = 1.00 mg Br^-)	EPA (SW-846) (9056)
Sodium Bromide Standard Solution, 1000 mg/L	ASTM (D 1246)
Bromide Stock Solution (1.00 mL = 1.00 mg Br?)	ASTM (D 4327)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1180-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)



Jason Thomas (04/26/2022)
Operations Manager

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC CL cal_00076

spex certiprep

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-CL9-2X **Lot No.** 5-146CL-2X

Description: 1000 µg/mL Chloride

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1000 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3182*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Sodium Chloride, Lot# 09141H. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 999 µg/mL

Method: Precipitation using Silver Nitrate. Filter, dry and weigh as AgCl.

Instrumental Analysis by Ion Chromatography: 1000 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.01	NO_3^-	<0.06
F^-	<0.05	$PO4^{-3}$	<0.03
NO_2^-	<0.05	$SO4^{-2}$	<0.08

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: Nov--2022 Certifying Officer: Katherine Cullinan

Katherine Cullinan, QC Manager

Page 1 of 2
Rev. 0

© 2021 | Spex, an Antylia Scientific company.

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO/IEC 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials – Contents of certificates, labels, and accompanying documentation
- ISO Guide 35: Reference Materials – Guidance for characterization and assessment of homogeneity and stability
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:
All analytes and matrix materials are obtained and verified by Spex CertiPrep from pre-qualified vendors as per ISO 9001, ISO/IEC 17025 and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of Spex CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at USMet-CRMSales@antylia.com.

Instructions for Use:
Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:
Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:
The homogeneity of the CRM has been confirmed by procedures consistent with ISO/IEC 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:
The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X = certified value, U = expanded uncertainty, x = property value
- $U = ku_c$ where k = 2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:
All certified values reported were derived from the Certification Report, Spex CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at USMet-CRMSales@antylia.com.

Legal Notice:
Spex CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against Spex CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall Spex CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

spex® an antylia scientific company
203 Norcross Avenue • Metuchen, NJ 08840
www.spex.com • Email: USMet-CRMSales@antylia.com
Phone: +1.800.LAB.SPEX • +1.732.549.7144 • Fax: +1.732.603.9647

Accredited to 17025 & 17034 ISO Certified to 9001

Reagent

IC FL cal_00023

RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Fluoride Standard, 1000 ppm F⁻

Lot Number: 2207H13 **Product Number:** 3173

Manufacture Date: JUL 29, 2022
Expiration Date: JAN 2024

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.
The concentration is confirmed by Fluoride ISE and is certified traceable to NIST SRM 2203.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Sodium Fluoride	7681-49-4	High Purity

Test	Specification	Result
Appearance	Colorless liquid	Passed
Fluoride (F)	995-1005 ppm	1005 ppm

Specification	Reference
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5542)
Fluoride Stock Solution (1.00 mL = 1.00 mg F-)	EPA (SW-846) (9056)
Fluoride Calibration Stock Solution (1,000 mg/L F-)	EPA (SW-846) (9214)
Stock Solution, 1.0 mL = 1.0 mg F	EPA (340.3)
Fluoride Solution, Stock (1.00 mL = 1.00 mg F)	ASTM (D 5996)
Fluoride Stock Solution (1.00 mL = 1.00 mg F?)	ASTM (D 4327)
Fluoride Stock Standard Solution (1 mg of F in 1 mL)	ACS (N/A)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
3173-16	500 mL natural poly	18 months
3173-32	1 L natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Myrlande Gilles (07/29/2022)
Quality Control
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC MS/MSD N02_00005

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	S347	Quality Test / Release Date	03/26/2021
Lot Number	210979		
Description	SODIUM NITRITE, A.C.S.		
Country of Origin	India	Suggested Retest Date	Jan/2023
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Yellow-white crystals
ASSAY	%	>= 97	100.9
CALCIUM	%	<= 0.01	<0.01
CHLORIDE	%	<= 0.005	<0.005
HEAVY METALS (as Pb)	%	<= 0.001	<0.001
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.01	<0.01
IRON (Fe)	%	<= 0.001	<0.001
POTASSIUM (K)	%	<= 0.005	<0.005
SULFATE (SO4)	%	<= 0.01	<0.01

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC MS/MSD S04_00006

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**P304**	**Quality Test / Release Date 3/2/2015**	
Lot Number	**147276**		
Description	**POTASSIUM SULFATE, CRYSTAL, CERTIFIED, A.C.S.**		
Country of Origin	**India**	*** Suggested Retest Date**	**Feb-2020**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	This product is not manufactured from, or with, any type of animal product, nor any derivative of an animal product. As such, this product should not be considered a vector for BSE or TSE.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	FINE WHITE CRYSTALS
ASSAY	%	>= 99	99.4
CALCIUM	%	<= 0.01	<0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
MAGNESIUM	%	<= 0.005	<0.0050
NITROGEN COMPOUNDS	ppm	<= 5	<5
PH 5% SOLUTION @ 25 DEG C		Inclusive Between 5.5 - 8.5	5.5
SODIUM (Na)	%	<= 0.02	<0.020

Lab Manager Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Reagent

IC N03 cal_00028

RICCA CHEMICAL COMPANY®

1841 Broad Street
Pocomoke City, MD 21851
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Nitrate Nitrogen Standard, 1000 ppm N (4427 ppm NO_3^-)

Lot Number: 2205B73 **Product Number:** 5459

Manufacture Date: MAY 11, 2022
Expiration Date: NOV 2023

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrate	7757-79-1	High Purity
Chloroform	67-66-3	

Test	Specification	Result
Appearance	Colorless liquid	Passed
Nitrogen (N)	995-1005 ppm	1000 ppm

Specification	Reference
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 A)
Nitrate Solution, Stock (1.0 mL = 1.0 mg NO3-N)	ASTM (D 3867 B)
Stock Nitrate Solution: 1 mL = 1.0 mg NO3-N	EPA (353.2)
Stock Nitrate Solution: 1.0 mL = 1.00 mg NO3-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5459-16	500 mL natural poly	18 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Myrlande Gilles (05/11/2022)
Quality Control

This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC NO2 ICV_00022

ERA

A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product:	1000 mg/L Nitrite as N (NO_2-N)
Catalog Number:	053-125mL, 990-500mL
Lot No.	261221m
Starting Material:	Sodium Nitrite ($NaNO_2$)
Matrix:	18 megohm deionized water
Density:	1.0022 ± 0.0005 g/mL 21.3 °C and 740 mm Hg
Verification Method:	Ion Chromatography
Certificate Issue Date:	December 21, 2021
Expiration Date:	December 14, 2023
Revision Number:	Original

CERTIFICATION

Parameter	Certified Value[1]	Uncertainty[2]	NIST Traceability	
	mg/L	%	SRM Number[3]	Recovery %
Nitrite as N (NO_2-N)	1000	0.948	-	-

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

Certified Reference Material

▪ Certificate of Analysis ▪

1. The **Certified Value** is the actual gravimetric/volumetric "made-to" concentration confirmed by ERA analytical verification. The certified value is monitored and the purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

4. **Metrological Traceability**. This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

5. **Storage**: 20-25°C

6. **Intended Use**: This standard is intended to be used to calibrate your analytical process and/or as a quality control check of the entire process for the analytes/matrix included in the standard.

7. **Minimum Sample Size**: ERA suggests that when subsampling this product prior to analysis, you use a minimum sample size of at least 1 mL. Using a smaller sample size may invalidate the assigned value and/or uncertainty shown.

8. **Repeat Sampling**: Repeated Sampling of this product is permitted, provided minimum sample sizes and storage instructions are adhered to.

9. **Safety**: ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. Safety Data Sheets (SDS) for all ERA products are available through our website: www.eraqc.com

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer
Brian Miller

Brian Miller

Quality Officer
Matthew Seebeck

ISO 17034:2016 ACCREDITED Reference Material Producer CERT #1539.03

ISO/IEC 17025:2017 ACCREDITED Chemical Testing Laboratory CERT #1539.02

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

10/18/2023 8:21 PM

Reagent

IC NO3 ICV_00019

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product:	1000 mg/L Nitrate as N (NO_3-N)
Catalog Number:	052-125mL, 991-500mL
Lot No.	011221m
Starting Material:	Potassium Nitrate (KNO_3)
Matrix:	18 megohm deionized water
Density:	1.0029 ± 0.0005 g/mL 20.2 °C and 749 mm Hg
Verification Method:	Ion Chromatography
Certificate Issue Date:	December 21, 2021
Expiration Date:	December 1, 2023
Revision Number:	Original

CERTIFICATION

Parameter	Certified Value[1]	Uncertainty[2]	NIST Traceability	
	mg/L	%	SRM Number[3]	Recovery %
Nitrate as N (NO_3-N)	1000	1.57	3185	101

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

1. The **Certified Value** is the actual gravimetric/volumetric "made-to" concentration confirmed by ERA analytical verification. The certified value is monitored and the purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

4. **Metrological Traceability.** This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

5. **Storage**: 20-25°C

6. **Intended Use**: This standard is intended to be used to calibrate your analytical process and/or as a quality control check of the entire process for the analytes/matrix included in the standard.

7. **Minimum Sample Size**: ERA suggests that when subsampling this product prior to analysis, you use a minimum sample size of at least 1 mL. Using a smaller sample size may invalidate the assigned value and/or uncertainty shown.

8. **Repeat Sampling**: Repeated Sampling of this product is permitted, provided minimum sample sizes and storage instructions are adhered to.

9. **Safety**: ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. Safety Data Sheets (SDS) for all ERA products are available through our website: www.eraqc.com

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer
Brian Miller

Brian Miller

Quality Officer
Matthew Seebeck

ISO 17034:2016 ACCREDITED Reference Material Producer CERT #1529.03

ISO/IEC 17025:2017 ACCREDITED Chemical Testing Laboratory CERT #1539.02

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

Reagent

IC P04 cal_00030

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Phosphorus AA Standard, 1000 ppm P in H_2O

Lot Number: 4208152 **Product Number:** AP1KW

Manufacture Date: AUG 02, 2022
Expiration Date: JUL 2024

This is a single element solution that was prepared volumetrically to contain the certified value reported. The uncertainty associated with the certified value is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.
The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3139.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Ammonium Dihydrogen Phosphate	7722-76-1	High Purity

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Phosphorus (P)	995-1005 ppm	1000 ppm	3139

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
AP1KW-500	500 mL natural poly	24 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Paul Brandon (08/02/2022)
Production Manager
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

IC SO4 Cal_00009

spex certiprep

Reference Materials Producer
Cert #2495.01

Chemical Testing
Cert #2495.02

SPEXertificate®

Certificate of Reference Material

Lot No. 5-160SO4-2X

Catalog Number: AS-SO49-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1000 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# AN07201A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 999 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as BaSO4.

Instrumental Analysis by Ion Chromatography: 1000 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.01	NO_2^-	<0.01
Cl^-	<0.03	NO_3^-	<0.02
F^-	<0.003	$PO4^{-3}$	<0.08

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: AUG -- 2022 Certifying Officer: Katherine Cullinan, QC Manager

Page 1 of 2
Rev. 0

© 2021 | Spex, an AMETEK Scientific company.

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO/IEC 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials – Contents of certificates, labels, and accompanying documentation
- ISO Guide 35: Reference Materials – Guidance for characterization and assessment of homogeneity and stability
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:
All analytes and matrix materials are obtained and verified by Spex CertiPrep from pre-qualified vendors as per ISO 9001, ISO/IEC 17025 and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of Spex CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at USMet-CRMSales@antylia.com.

Instructions for Use:
Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:
Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:
The homogeneity of the CRM has been confirmed by procedures consistent with ISO/IEC 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:
The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X = certified value, U = expanded uncertainty, x = property value
- $U = ku_c$ where k = 2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:
All certified values reported were derived from the Certification Report, Spex CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at USMet-CRMSales@antylia.com.

Legal Notice:
Spex CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against Spex CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall Spex CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

spex® an antylia scientific company

203 Norcross Avenue • Metuchen, NJ 08840
www.spex.com • Email: USMet-CRMSales@antylia.com
Phone: +1.800.LAB.SPEX (1.800.522.7739) • +1.732.549.7144 • Fax: +1.732.603.9647

Reagent

IC SO4 Cal_00010

spex certiprep

Reference Materials Producer
Cert #2495.01

SPEXertificate®

Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: AS-SO49-2X **Lot No.** 5-160SO4-2X

Description: 1000 µg/mL Sulfate

Matrix: H_2O

This **Ion Chromatography** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for ion chromatography instrumentation. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Value: 1000 µg/mL ±5 µg/mL

Certified Value is Traceable to: 3181*

* - indicates NIST SRM † - indicates SPEX CertiPrep CRM (when NIST SRM is not available) ‡ - prepared gravimetrically

The CRM is prepared gravimetrically using high purity Potassium Sulfate, Lot# AN07201A. The certified value listed is the average of values obtained by classical wet assay and ion chromatography analysis.

Refer to side 2 for details of measurement uncertainties.

Classical Wet Assay: 999 µg/mL

Method: Precipitation using Barium Chloride. Filter, ignite, and weigh as BaSO4.

Instrumental Analysis by Ion Chromatography: 1000 µg/mL

Uncertified Properties

Trace Ionic Impurities in the Actual Solution via IC Analysis:

Element	µg/mL	Element	µg/mL
Br^-	<0.01	NO_2^-	<0.01
Cl^-	<0.03	NO_3^-	<0.02
F^-	<0.003	$PO4^{-3}$	<0.08

Balances are calibrated regularly with weight sets traceable to NIST #32856, #32867 and others. This CRM is guaranteed stable and accurate to +/- 0.5% of the certified value. This includes uncertainty components due to preparation, homogeneity by the most precise method, and short-term and long-term stability. This guarantee is valid for a period of one year from the date of certification only when the material is kept tightly capped and stored under ambient laboratory conditions.

Date of Certification: Nov--2022 Certifying Officer: Katherine Cullinan, QC Manager

Page 1 of 2
Rev. 0

© 2021 | Spex, an Antylia Scientific company.

Report of Certification

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001 (certified by DQS), ISO/IEC 17025 (accredited by A2LA) and ISO 17034 (accredited by A2LA) quality system consistent with the following guides:

- ISO 9001: Quality management systems – Requirements
- ISO/IEC 17025: General requirements for the competence of testing and calibration laboratories
- ISO 17034: General requirements for the competence of reference material producers
- ISO Guide 30: Reference Materials – Selected terms and definitions
- ISO Guide 31: Reference Materials – Contents of certificates, labels, and accompanying documentation
- ISO Guide 35: Reference Materials – Guidance for characterization and assessment of homogeneity and stability
- Guide to the Expression of Uncertainty in Measurement, 2008
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurement – Third Edition
- NIST Technical Note 1297

Material Source:
All analytes and matrix materials are obtained and verified by Spex CertiPrep from pre-qualified vendors as per ISO 9001, ISO/IEC 17025 and ISO 17034 guidelines. Vendor identifications are proprietary; however, sources of all materials used in the preparation and testing of Spex CertiPrep CRMs are tracked and documented. For further assistance, please contact Sales Support at USMet-CRMSales@antylia.com.

Instructions for Use:
Primary usage of this CRM is in neat form or diluted serially with matrix of a purity at or greater than the purity of the original matrix solution. If dilution is required, the diluent must be compatible with all certified analytes and contain stabilizers appropriate for the period of intended use. The CRM can also be used as a spike or with a spike, again with appropriate compatibility considerations. All solutions should be thoroughly mixed, by shaking, prior to use and never pipetted directly from the bottle. Do not return excess solution to the bottle. All surfaces that come in contact with the solution must be thoroughly cleaned and leached prior to use. Dilutions should be performed only with Class A volumetric glassware. See SDS for health and safety information.

Method of Preparation:
Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, analytical instrumentation and personnel have been qualified prior to use. The highest purity acids applicable, 18 megohm, double deionized water, acid-leached triple-rinsed bottles (where appropriate), and Class A/calibrated volumetrics have been used in all preparations.

Homogeneity:
The homogeneity of the CRM has been confirmed by procedures consistent with ISO/IEC 17025, ISO 17034, and ASTM D6362-98 Appendix X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedure 4600-HOMOGEN-1A. Since the product is highly homogeneous, any sample size taken for analysis would be within the uncertainty budget. This is consistent with the intended use of the CRM.

Statistical Estimator and Confidence Limits:
The certified value 'X' listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X = certified value, U = expanded uncertainty, x = property value
- $U = ku_c$ where k = 2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual element standard uncertainty components u_i and $u_c = \sqrt{\Sigma u_i^2}$

Certification Report:
All certified values reported were derived from the Certification Report, Spex CertiPrep's traceability documentation, identified by the lot number of this CRM. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further assistance, please contact Sales Support at USMet-CRMSales@antylia.com.

Legal Notice:
Spex CertiPrep reference materials are not for any cosmetic, drug or household application and are to be used only by qualified individuals who are trained in appropriate procedures. No claims against Spex CertiPrep, LLC. of any kind whatsoever, whether based on breach of warranty, alleged negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall Spex CertiPrep, LLC. be liable for any loss of profits or any incidental, special, or consequential damages.

spex® an antylia scientific company

203 Norcross Avenue • Metuchen, NJ 08840
www.spex.com • Email: USMet-CRMSales@antylia.com
Phone: +1.800.LAB.SPEX • +1.732.549.7144 • Fax: +1.732.603.9647

Accredited to 17025 & 17034 ISO Certified to 9001

Reagent

IC SO4 ICV_00024

ERA
A Waters Company

Certified Reference Material

▪ Certificate of Analysis ▪

Product:	1000 mg/L Sulfate
Catalog Number:	062-125mL, 995-500mL
Lot No.	021221m
Starting Material:	Potassium Sulfate (K_2SO_4)
Matrix:	18 megohm deionized water
Density:	1.0002 ± 0.0005 g/mL 20.4 °C and 748 mm Hg
Verification Method:	Ion Chromatography
Certificate Issue Date:	December 22, 2021
Expiration Date:	December 1, 2023
Revision Number:	Original

CERTIFICATION

Parameter	Certified Value[1]	Uncertainty[2]	NIST Traceability	
	mg/L	%	SRM Number[3]	Recovery %
Sulfate	1000	0.994	3181	97.5

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

1. The **Certified Value** is the actual gravimetric/volumetric "made-to" concentration confirmed by ERA analytical verification. The certified value is monitored and the purchasers will be notified of any significant changes resulting in recertification or withdrawal of this certified reference material during the period of validity of this certificate.

2. The **Uncertainty** represents an expanded uncertainty and approximates a 95% confidence interval. The uncertainty is based on the characterization, homogeneity and stability characteristics of the product, multiplied by a coverage factor (k=2). The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product. The formula used to calculate the expanded uncertainty is:
$U_{expanded} = k * SQRT((U_{char}^2) + (U_{homogen}^2) + (U_{LTS}^2) + (U_{STS}^2) + (U_{RSS}^2))$

Where:

$U_{expanded}$ = Expanded uncertainty.
k = Coverage factor.
U_{char} = Combined standard uncertainty of the manufacturing and/or analytical verification assessment.
$U_{homogen}$ = Standard uncertainty of the homogeneity assessment.
U_{LTS} = Standard uncertainty associated with long-term stability.
U_{STS} = Standard uncertainty associated with short-term (transport) stability.
U_{RSS} = Standard uncertainty associated with repeated sampling of the product (where permitted by product use instructions).

3. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. **Analytical Traceability Recovery (%)** = [(% recovery ERA certified reference material)/(% recovery NIST SRM)]*100
The traceability data shown were compiled by analyzing this ERA certified reference material and/or it's associated stock solution(s) against the applicable NIST SRMs.

4. **Metrological Traceability.** This certified reference material is metrologically traceable to NIST mass reference materials through an unbroken chain of comparisons.

5. **Storage**: 20-25°C

6. **Intended Use**: This standard is intended to be used to calibrate your analytical process and/or as a quality control check of the entire process for the analytes/matrix included in the standard.

7. **Minimum Sample Size**: ERA suggests that when subsampling this product prior to analysis, you use a minimum sample size of at least 1 mL. Using a smaller sample size may invalidate the assigned value and/or uncertainty shown.

8. **Repeat Sampling**: Repeated Sampling of this product is permitted, provided minimum sample sizes and storage instructions are adhered to.

9. **Safety**: ERA products may be hazardous and are intended for use by professional laboratory personnel trained in the competent handling of such materials. Responsibility for the safe use of these products rests entirely with the buyer and/or user. Safety Data Sheets (SDS) for all ERA products are available through our website: www.eraqc.com

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer
Brian Miller

Brian Miller

Quality Officer
Matthew Seebeck

ISO 17034:2016 ACCREDITED Reference Material Producer CERT #1539.03

ISO/IEC 17025:2017 ACCREDITED Chemical Testing Laboratory CERT #1539.02

16341 Table Mountain Pkwy ▪ Golden, CO 80403 ▪ 800.372.0122 ▪ 303.431.8454 ▪ fax 303.421.0159 ▪ www.eraqc.com

Reagent

MNX,TNX,DNX_00076

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-23984

Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006725091

Lot Issue Date: 31-Jan-2023

Expiration Date: 29-Feb-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.3	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.1	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.7	±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above. Purity values are taken from approved vendor raw material certificates.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference (RM) standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference (RM) standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

Reagent

MNX,TNX,DNX_00078

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-23984

Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006725091

Lot Issue Date: 31-Jan-2023

Expiration Date: 29-Feb-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.3	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.1	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.7	±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above. Purity values are taken from approved vendor raw material certificates.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference (RM) standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference (RM) standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

Reagent

MNX,TNX,DNX_00080

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard

Product Number: CUS-23984

Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006725091

Lot Issue Date: 31-Jan-2023

Expiration Date: 29-Feb-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.3	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.1	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	116.7	±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above. Purity values are taken from approved vendor raw material certificates.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference (RM) standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference (RM) standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

Reagent

MNX,TNX,DNX_00081

Agilent
Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard
Product Number: CUS-23984
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006731787
Lot Issue Date: 28-Feb-2023
Expiration Date: 31-Mar-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.1	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.4	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	117.1	±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above. Purity values are taken from approved vendor raw material certificates.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference (RM) standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference (RM) standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

Agilent
Trusted Answers

The certification of this analytical reference standard (RM) is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015 Quality Management System. Cert# 951215321

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025

Reagent

MNX,TNX,DNX_00083

Agilent
Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Custom Standard
Product Number: CUS-23984
Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006731787
Lot Issue Date: 28-Feb-2023
Expiration Date: 31-Mar-2024

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
1,3,5-trinitroso-1,3,5-triazacyclohexane (TNX)	100.1	±	0.5 µg/mL	N/A	RM12426
1-nitro-3,5-dinitroso-1,3,5-triazacyclohexane (DNX)	100.4	±	0.5 µg/mL	N/A	RM12428
1-nitroso-3,5-dinitro-1,3,5-triazacyclohexane (MNX)	117.1	±	0.6 µg/mL	N/A	RM12428

Matrix: acetonitrile

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) standard was manufactured and verified in accordance with an ISO 9001 registered quality system and analyte concentrations were verified by an ISO 17025 accredited laboratory. The concentration and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed above. Purity values are taken from approved vendor raw material certificates.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference (RM) standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference (RM) standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:

Agilent
Trusted Answers

The certification of this analytical reference standard (RM) is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015 Quality Management System. Cert# 951215321

www.agilent.com/quality/
CSD-QA-015.1

ISO 17025

Reagent

NO2 ICV Std_00039

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Nitrite Nitrogen Standard, 1000 ppm N (3285 ppm NO_2^-)

Lot Number: 4304L74 **Product Number:** 5461

Manufacture Date: APR 25, 2023
Expiration Date: OCT 2023

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Nitrite	7758-09-0	ACS
Chloroform	67-66-3	

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Assay (vs. Potassium Permanganate)	995-1005 ppm N	1000 ppm N	8040

Specification	Reference
Nitrite Solution, Stock (1.0 mL = 1.0 mg NO2-N)	ASTM (D 3867 A)
Nitrite Solution, Stock (1.0 mL = 1.0 mg NO2-N)	ASTM (D 3867 B)
Stock Nitrite Solution: 1 mL = 1.0 mg NO2-N	EPA (353.2)
Stock Nitrite Solution: 1.0 mL = 1.00 mg NO2-N	EPA (353.3)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
5461-16	500 mL natural poly	6 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)

Paul Brandon (04/25/2023)
Production Manager
This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

PicricARestek_00119

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31499 **Lot No.:** A0183202

Description : Picric Acid Standard

Picric Acid Standard 1000µg/mL, Methanol, 1mL/1000µg/mL *PGI BOX REQUIRED* SHIP FED EX GROUND ONLY

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2027 **Storage:** 10°C or colder

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Picric Acid	1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 88-89-1 (Lot 06130CU)		+/- 55.0021	µg/mL	Unstressed
	Purity 99%		+/- 64.1379	µg/mL	Stressed

Solvent: Methanol
CAS # 67-56-1
Purity 99%

Column:
250mm x 4.6mm
Ultra C18 (cat.# 9174575)

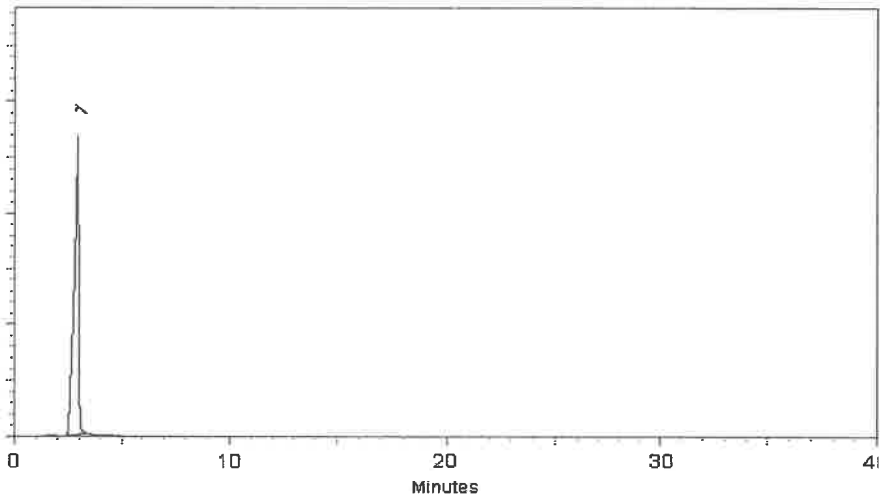
Flow Rate:
1.0 ml/min.

Mobile Phase A:
water:methanol (44:56 V/V)

Mobile Phase B:

Mobile Phase Composition:
100%A

Det. Type:
Wavelength: 210nm & 254nm



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 23-Mar-2022 **Balance:** 1128360905

Amanda Miller - Operations Tech-ARM QC

Date Passed: 28-Mar-2022

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

Reagent

SFD CAL STK_00010

ThermoFisher SCIENTIFIC

Version	02
Molecular weight	240.18
Quality Test / Release Date	08/28/2022
Molecular Formula	Na2 S . 9 H2 O
CAS No	1313-84-4
Linear Formula	Na2S.9H2O
Flash Point (°C)	

Certificate of Analysis

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third party data or information associated with the product. Products are for research and development use only. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Catalog Number	38706	**Quality Test / Release Date**	08/28/2022
Lot Number	A0411500	**Suggested retest date**	08/28/2025
Description	Sodium sulfide nonahydrate,98+%,extra pure		
Country of Origin	INDIA		
Declaration of Origin	synthetic		

BSE/TSE	
Chemical	

Result name	Specifications	Test Value
Appearance (Color)	Colorless to light yellow	off white
Appearance (Form)	Adhering crystals and/or chunks	Adhering crystals and chunks
Titration Iodimetric	32.0 to 38.0 % (Na2S)	32.0 % (Na2S)
Total nitrogen (as N)	=<0.005 %	=<0.005 %
Sulfite (as SO2)	=<2000 ppm	=<1000 ppm
Thiosulphate (S2O3)	=<5000 ppm	=<1000 ppm

C. Wygaerts, QA Manager

Issued: 08-29-2022

Acros Organics BV
ENA23, zone1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax+32 14/59.34.34 Internet: https://www.thermofisher.com
1 Reagent Lane, Fair Lawn, NJ 07410, USA Fax 201-796-1329

Reagent

TOC ICV Std_00052

RICCA CHEMICAL COMPANY®

1490 Lammers Pike
Batesville, IN 47006
http://www.riccachemical.com
1-888-GO-RICCA
customerservice@riccachemical.com

Certificate of Analysis

Organic Carbon Standard, 1000 ppm C

Lot Number: 4301F19 **Product Number:** 1847

Manufacture Date: JAN 19, 2023
Expiration Date: JAN 2024

The certified value reported is the prepared value based upon the method of preparation of the material. The uncertainty in the prepared value is based upon the volumetric method of preparation.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Phosphoric Acid	7664-38-2	ACS
Potassium Acid Phthalate	877-24-7	ACS Acidimetric

Test	Specification	Result
Appearance	Colorless liquid	Passed
Carbon (C)	995-1005 ppm	1000 ppm

Specification	Reference
Organic Carbon Stock Solution	APHA (5310 B)
Potassium Hydrogen Phthalate, Stock Solution	EPA (SW-846) (9060)
Potassium Hydrogen Phthalate, Stock Solution, 1000 mg Carbon/liter	EPA (415.1)
Organic Carbon Solution, Standard (1 mL = 1 mg C)	ASTM (D 2579)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
1847-16	500 mL amber glass	12 months
1847-4	120 mL amber glass	12 months

Recommended Storage: 15°C - 30°C (59°F - 86°F)

Paul Brandon (01/19/2023)
Production Manager
This Certificate of Analysis is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

This test report shall not be reproduced, except in full, without the written approval of Ricca Chemical Company.

Reagent

TOC LCS Std_00059

Agilent

Trusted Answers

ISO 17034

Reference Material Certificate

Product Information Sheet

Product Name: Total Organic Carbon (TOC) Standard

Product Number: IQC-106

Storage Conditions: Store at Room Temperature (15° to 30°C).

Lot Number: 0006736079

Lot Issue Date: 20-Mar-2023

Expiration Date: 30-Apr-2025

Component Name	Concentration		Uncertainty	CAS#	Analyte Lot
potassium hydrogen phthalate (KHP) (as TOC)	1001	±	5 mg/L	000877-24-7	RM19308

Matrix: water (low TOC, < 50 ppb)

Description:
This document is prepared in accordance with ISO 17034 and Guide 31. This analytical reference material (RM) was manufactured and verified in accordance with an ISO 9001 registered quality system. The analyte concentration(s) were prepared and verified by an ISO 17034 / ISO 17025 accredited laboratory and compared to calibration standards independently prepared using NIST SRM(s) when available. The certified value and uncertainty value at the 95% confidence level for each analyte is determined gravimetrically.

Traceability:
The balances used for these measurements are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z540.3, ISO 9001, ISO 17025, and ISO 17034. Calibrated Class A glassware is used for volumetric measurements. Thermometers are calibrated against a NIST traceable thermometer in accordance with NIST Special Publication 1088.

Homogeneity:
This analytical reference standard was unitized according to an in-house procedure and is guaranteed to be homogeneous. There is no minimum sub-sample size required.

Instructions for Use:
Sample aliquots for analysis should be withdrawn at 20°C to 25°C immediately after opening the container and should be processed without delay for the certified values to be valid within the stated uncertainties.

Safety:
Refer to the Safety Data Sheet on www.agilent.com for information regarding this analytical reference material.

Intended Use:
This analytical reference standard is intended for the preparation of working reference samples for use in routine laboratory analyses, calibration of instruments, validation of analytical methods, assessments of measurement methods, and continuing calibration verification.

Expiration of Certification:
The certification of this analytical reference standard is valid until the expiration date specified above, provided the material is handled and stored in accordance with the instructions given in this certificate. This certification is nullified if the material is damaged, contaminated, or otherwise modified.

Agilent

Trusted Answers

Maintenance of Certification:
If substantive changes are noted that affect the certification before the expiration of this certificate, Agilent will notify the purchaser.

Sample lot approver:

Monica Bourgeois
QMS Representative

ANAB
ANSI National Accreditation Board
ACCREDITED
ISO 17034
REFERENCE MATERIAL PRODUCER

ISO 17034 Cert
No. AR-1936

RM was produced in accordance with the TUV/SUD registered ISO 9001:2015 Quality Management System. Cert# 951215321

www.agilent.com/quality/
CSD-QA-040.1

ISO 17025

8330B_DOD5

Nitroaromatics and Nitramines (HPLC)

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): UltraCarb5u ID: 4.6 (mm) GC Column (2): Luna-phenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB1 #	12DNB2 #
WBGmw-020-230901-GW	280-182443-1	99	
WBGmw-009-230901-GW	280-182443-2	100 M	
WBGmw-009-230901-GW	280-182443-2		93
WBGmw-014-230901-GW	280-182443-3	100	
WBGmw-006-230901-GW	280-182443-4	88 M	
WBGmw-006-230901-GW	280-182443-4		80 Q
WBGmw-016-230901-GW	280-182443-5	102 M	
WBGmw-021-230901-GW	280-182443-6	93 M	
WBGmw-021-230901-GW	280-182443-6		84
WBGmw-018-230901-GW	280-182443-7	96 M	
WBGmw-018-230901-GW	280-182443-7		87
WBGMW-RB-018-2023	280-182443-8	116	
WBGMW-RB-018-2023	280-182443-8		142 Q
WBGmw-017-230901-GW	280-182443-9	99 M	
FBQmw-175-230901-GW	280-182443-10	92 M	
FBQmw-175-230902-GW	280-182443-11	97 M	
	MB 280-629324/1-A	99	
	LCS 280-629324/2-A	96	
	LCS 280-629324/4-A	104	
	LCSD 280-629324/3-A	95	
	LCSD 280-629324/5-A	105	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	83-119

Column to be used to flag recovery values

FORM II 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 10120012.D

Lab ID: LCS 280-629324/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.08	104	73-125	
1,3-Dinitrobenzene	2.00	1.96	98	78-120	
2,4,6-Trinitrotoluene	2.00	1.89	94	71-123	
2,4-Dinitrotoluene	2.00	1.89	95	78-120	
2,6-Dinitrotoluene	2.00	1.86	93	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.81	90	79-120	
2-Nitrotoluene	2.00	1.54	77	70-127	
3,5-Dinitroaniline	2.00	1.70	85	71-117	
3-Nitrotoluene	2.00	1.61	80	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.64	82	76-125	
4-Nitrotoluene	2.00	1.50	75	71-127	
DNX	2.01	2.24	112	66-119	
HMX	2.00	2.04	102	65-135	
MNX	2.34	2.40	103	57-132	
Nitrobenzene	2.00	1.69	85	65-134	
Nitroglycerin	20.0	20.3	102	74-127	
PETN	20.0	20.6	103	73-127	
RDX	2.00	2.00	100	68-130	
Tetryl	2.00	1.96	98	64-128	
TNX	2.00	2.08	104	50-150	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 10120014.D

Lab ID: LCS 280-629324/4-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
2,4-diamino-6-nitrotoluene	2.00	1.42	71	68-122	
2,6-diamino-4-nitrotoluene	2.00	1.52	76	72-122	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 10120013.D

Lab ID: LCSD 280-629324/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,3,5-Trinitrobenzene	2.00	2.00	100	4	20	73-125	
1,3-Dinitrobenzene	2.00	2.00	100	2	20	78-120	
2,4,6-Trinitrotoluene	2.00	1.93	96	2	20	71-123	
2,4-Dinitrotoluene	2.00	1.91	96	1	20	78-120	
2,6-Dinitrotoluene	2.00	1.92	96	3	20	77-127	
2-Amino-4,6-dinitrotoluene	2.00	1.90	95	5	20	79-120	
2-Nitrotoluene	2.00	1.64	82	6	20	70-127	
3,5-Dinitroaniline	2.00	1.77	88	4	20	71-117	
3-Nitrotoluene	2.00	1.72	86	6	20	73-125	
4-Amino-2,6-dinitrotoluene	2.00	1.82	91	10	20	76-125	
4-Nitrotoluene	2.00	1.60	80	7	20	71-127	
DNX	2.01	2.24	111	0	20	66-119	
HMX	2.00	2.08	104	1	20	65-135	
MNX	2.34	2.44	104	2	20	57-132	
Nitrobenzene	2.00	1.77	89	4	20	65-134	
Nitroglycerin	20.0	19.9	100	2	20	74-127	
PETN	20.0	20.6	103	0	20	73-127	
RDX	2.00	1.98	99	1	20	68-130	
Tetryl	2.00	2.00	100	2	20	64-128	
TNX	2.00	2.08	104	0	20	50-150	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 10120015.D

Lab ID: LCSD 280-629324/5-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4-diamino-6-nitrotoluene	2.00	1.58	79	10	20	68-122	
2,6-diamino-4-nitrotoluene	2.00	1.70	85	11	20	72-122	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: MB 280-629324/1-A

Matrix: Water Date Extracted: 10/11/2023 13:57

Lab File ID:(1) 10120011.D Lab File ID:(2)

Date Analyzed:(1) 10/12/2023 14:06 Date Analyzed:(2)

Instrument ID:(1) CHHPLC_X3 Instrument ID:(2) CHHPLC_X5

GC Column:(1) UltraCarb5uO ID: 4.6(mm) GC Column:(2) Luna-phenylh ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 280-629324/2-A	10/12/2023 14:29	
	LCSD 280-629324/3-A	10/12/2023 14:51	
	LCS 280-629324/4-A	10/12/2023 15:15	
	LCSD 280-629324/5-A	10/12/2023 15:37	
WBGmw-020-230901-GW	280-182443-1	10/12/2023 16:00	
WBGmw-009-230901-GW	280-182443-2	10/12/2023 16:23	10/13/2023 20:13
WBGmw-014-230901-GW	280-182443-3	10/12/2023 16:46	
WBGmw-006-230901-GW	280-182443-4	10/12/2023 17:09	10/13/2023 20:48
WBGmw-016-230901-GW	280-182443-5	10/12/2023 17:32	
WBGmw-021-230901-GW	280-182443-6	10/12/2023 18:41	10/13/2023 21:23
WBGmw-018-230901-GW	280-182443-7	10/12/2023 19:04	10/13/2023 21:58
WBGMW-RB-018-2023	280-182443-8	10/12/2023 19:27	10/13/2023 22:33
WBGmw-017-230901-GW	280-182443-9	10/12/2023 19:50	
FBQmw-175-230901-GW	280-182443-10	10/12/2023 20:13	
FBQmw-175-230902-GW	280-182443-11	10/12/2023 20:36	

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-009-230901-GW Lab Sample ID: 280-182443-2

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 10/12/2023 16:23 Date Analyzed (2): 10/13/2023 20:13

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.57	6.42	6.72	1.6		0.8
	2		6.83	6.70	7.00	1.6		
MNX	1		7.19	7.04	7.34	0.21		34.9
	2		7.71	7.57	7.87	0.15		
RDX	1		7.58	7.42	7.72	3.2		0.1
	2		9.13	9.00	9.30	3.2		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-006-230901-GW Lab Sample ID: 280-182443-4

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 10/12/2023 17:09 Date Analyzed (2): 10/13/2023 20:48

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.57	6.42	6.72	3.2		5.3
	2		6.84	6.70	7.00	3.0		
MNX	1		7.20	7.04	7.34	0.37		13.4
	2		7.71	7.57	7.87	0.33		
RDX	1		7.58	7.42	7.72	6.6		1.6
	2		9.12	9.00	9.30	6.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-018-230901-GW Lab Sample ID: 280-182443-7

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 10/12/2023 19:04 Date Analyzed (2): 10/13/2023 21:58

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		6.53	6.42	6.72	0.11		14.2
	2		6.83	6.70	7.00	0.13		
RDX	1		7.57	7.42	7.72	0.17		17.2
	2		9.12	9.00	9.30	0.21		

FORM X
IDENTIFICATION SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGMW-RB-018-2023 Lab Sample ID: 280-182443-8

Instrument ID (1): CHHPLC_X3 Instrument ID (2): CHHPLC_X5

Date Analyzed (1): 10/12/2023 19:27 Date Analyzed (2): 10/13/2023 22:33

GC Column (1): UltraCarb5uODS ID: 4.6(mm) GC Column (2): Luna-phenylh ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
TNX	1		6.45	6.34	6.54	0.13		161.5
	2		5.26	5.16	5.46	1.2		
RDX	1		7.60	7.42	7.72	0.79		122.2
	2		9.15	9.00	9.30	3.3		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-020-230901-GW | Lab Sample ID: 280-182443-1

Matrix: Water | Lab File ID: 10120016.D

Analysis Method: 8330B | Date Collected: 10/04/2023 09:57

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 486.1(mL) | Date Analyzed: 10/12/2023 16:00

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046
6629-29-4	2,4-diamino-6-nitrotoluene	0.93	U	1.0	0.93	0.45
121-14-2	2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.93	U	1.0	0.93	0.23
606-20-2	2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.088
618-87-1	3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14
99-08-1	3-Nitrotoluene	0.36	U	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
80251-29-2	DNX	0.26	U	0.51	0.26	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.090
5755-27-1	MNX	0.30	U M	0.51	0.30	0.095
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.094
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.95
78-11-5	PETN	1.0	U	1.1	1.0	0.46
121-82-4	RDX	0.21	U	0.22	0.21	0.053
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033
13980-04-6	TNX	0.26	U M	0.51	0.26	0.081

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120016.D
Lims ID: 280-182443-A-1-A
Client ID: WBGmw-020-230901-GW
Sample Type: Client
Inject. Date: 12-Oct-2023 16:00:55 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 19:22:52

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2	2,6-diamino-4-nitrotoluene	1		6.435			ND	
3	TNX	1		6.443			ND	U
4	HMX	1		6.570			ND	
5	2,4-diamino-6-nitrotoluene	1		6.629			ND	
6	DNX	1		6.770			ND	
7	MNX	1	7.213	7.190	0.023	833	0.006006	M
8	RDX	1		7.570			ND	
$ 10	1,2-Dinitrobenzene	1	8.526	8.510	0.016	24624	0.1987	
11	1,3,5-Trinitrobenzene	1		8.637			ND	
12	1,3-Dinitrobenzene	1		9.243			ND	U
13	Nitrobenzene	1		9.610			ND	
14	3,5-Dinitroaniline	1		9.823			ND	
15	Tetryl	1		9.956			ND	
16	Nitroglycerin	2		10.403			ND	
17	2,4,6-Trinitrotoluene	1		10.836			ND	
18	4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19	2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20	2,6-Dinitrotoluene	1		11.416			ND	
21	2,4-Dinitrotoluene	1		11.583			ND	
22	o-Nitrotoluene	1		12.383			ND	
23	p-Nitrotoluene	1		12.790			ND	
24	m-Nitrotoluene	1		13.350			ND	
25	PETN	2		14.463			ND	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
U - Marked Undetected

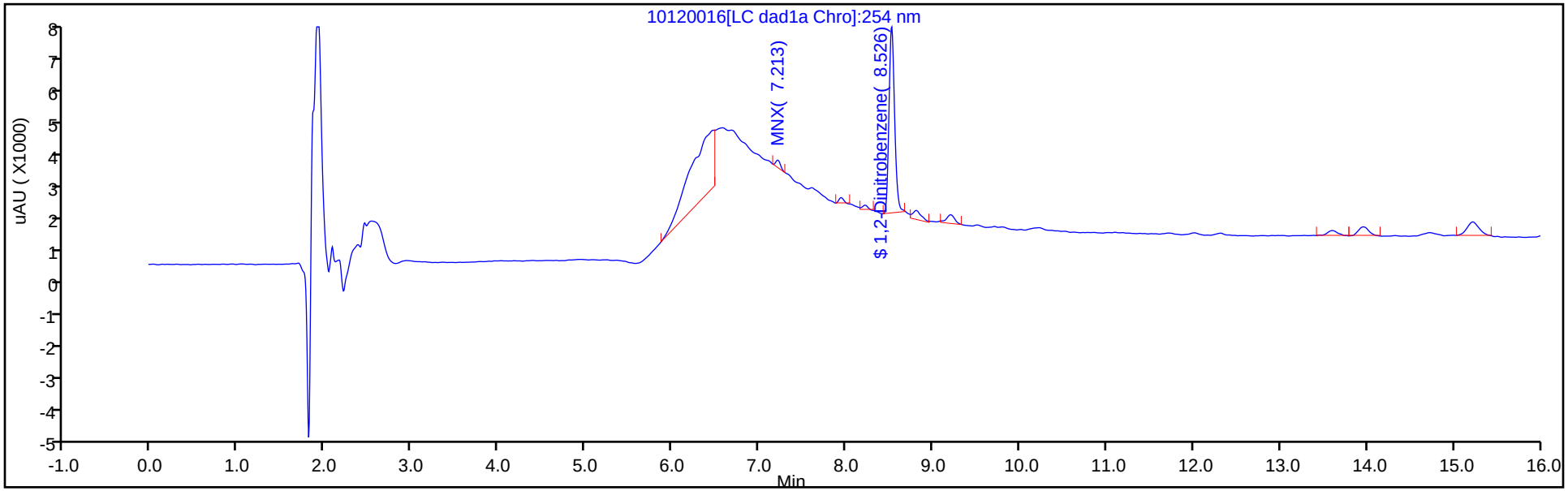
Report Date: 13-Oct-2023 09:16:38 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

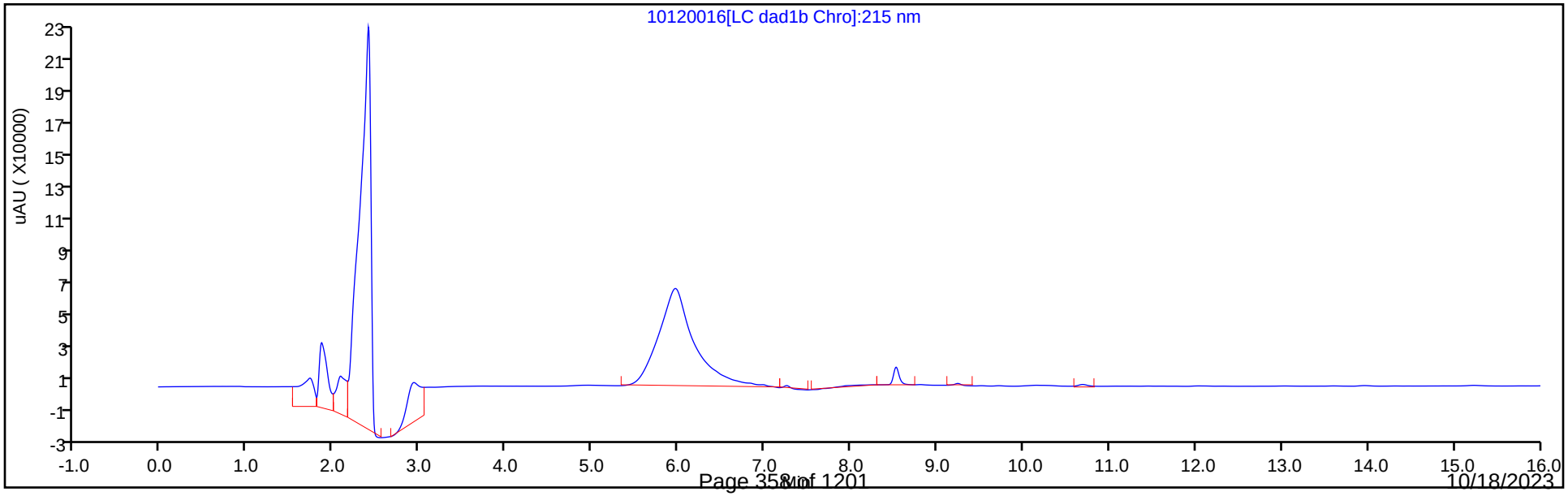
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120016.d

Injection Date:	12-Oct-2023 16:00:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-A-1-A	Lab Sample ID:	280-182443-1	Worklist Smp#:	16
Client ID:	WBGmw-020-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120016.D				
Lims ID:	280-182443-A-1-A				
Client ID:	WBGmw-020-230901-GW				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 16:00:55	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-1-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 09:16:33	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 12-Oct-2023 19:22:52

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1987	99.36

User Disabled Compound Report

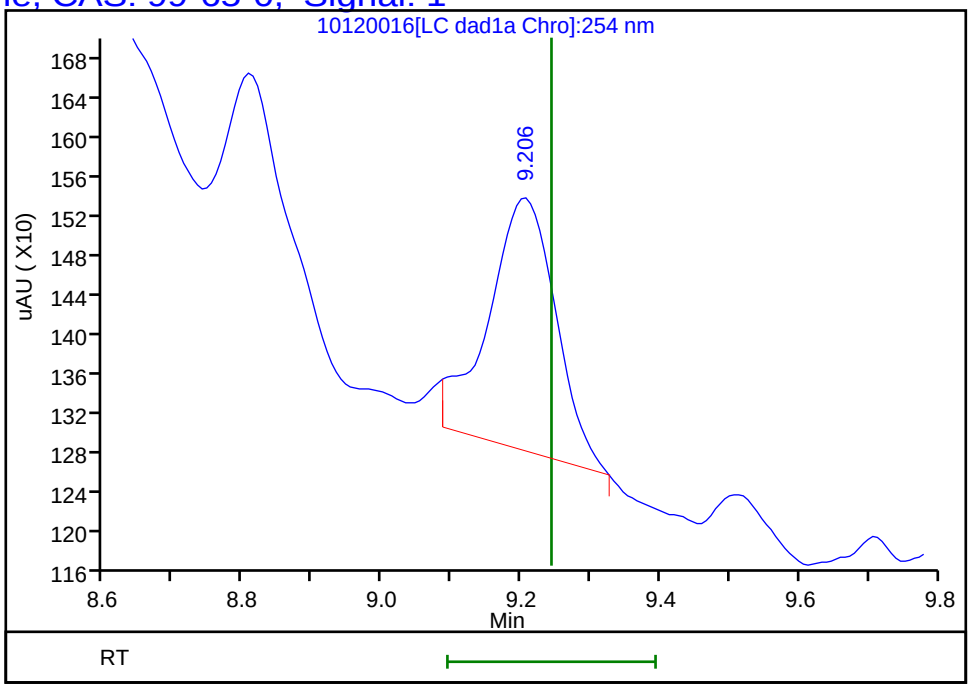
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120016.d
Injection Date: 12-Oct-2023 16:00:55 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-1-A Lab Sample ID: 280-182443-1
Client ID: WBGmw-020-230901-GW
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.21
Response: 1723
Amount: 0.005874



Reviewer: LV5D, 12-Oct-2023 19:22:52
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

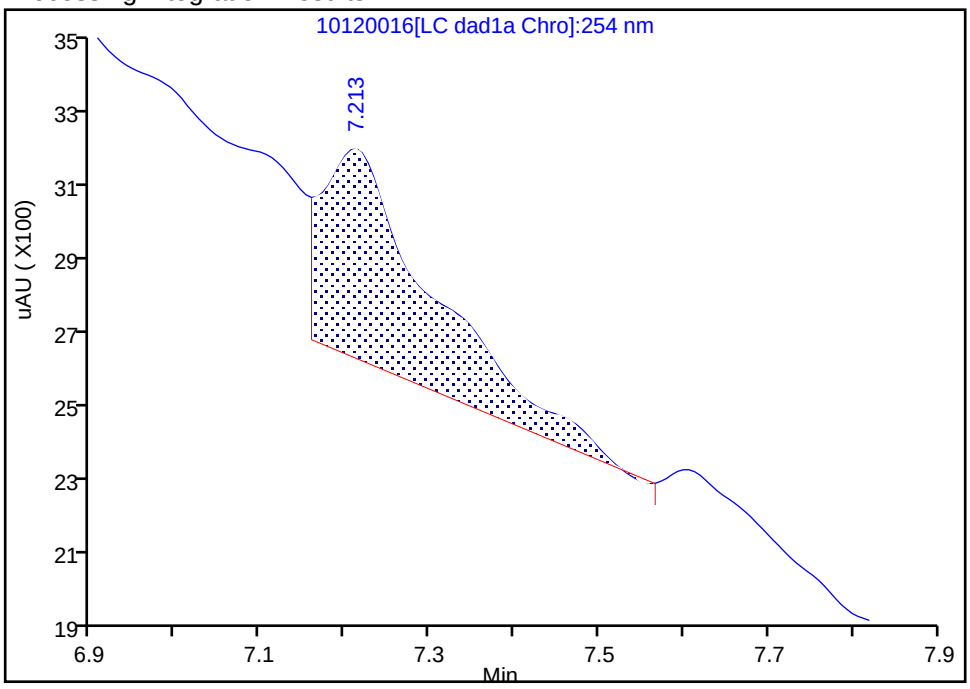
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120016.d				
Injection Date:	12-Oct-2023 16:00:55	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-1-A	Lab Sample ID:	280-182443-1		
Client ID:	WBGmw-020-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

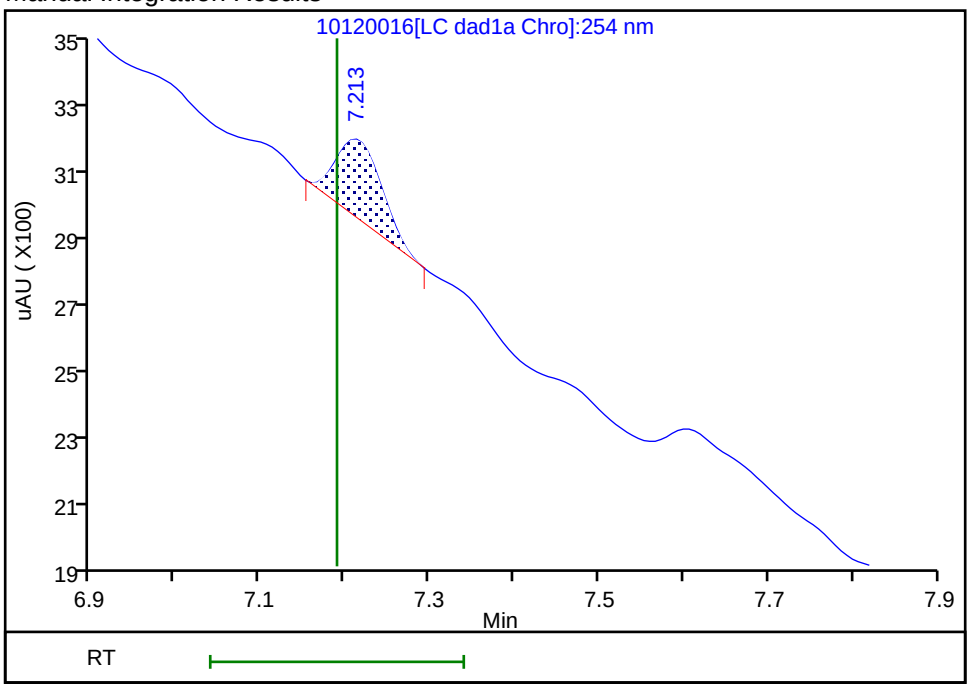
Processing Integration Results

RT: 7.21
Area: 4957
Amount: 0.035742
Amount Units: ug/mL



Manual Integration Results

RT: 7.21
Area: 833
Amount: 0.006006
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:22:51 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

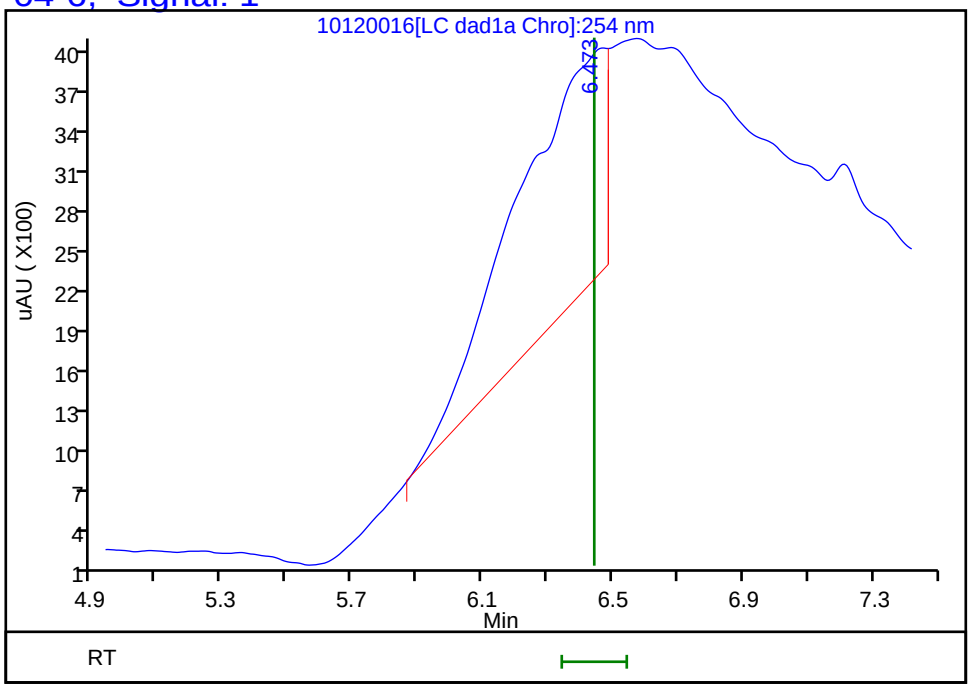
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120016.d
Injection Date: 12-Oct-2023 16:00:55 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-1-A Lab Sample ID: 280-182443-1
Client ID: WBGmw-020-230901-GW
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6, Signal: 1

RT: 6.47
Response: 36033
Amount: 0.179482



Reviewer: LV5D, 12-Oct-2023 19:22:52
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-009-230901-GW | Lab Sample ID: 280-182443-2

Matrix: Water | Lab File ID: 10120017.D

Analysis Method: 8330B | Date Collected: 10/04/2023 10:00

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 484.1(mL) | Date Analyzed: 10/12/2023 16:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046
6629-29-4	2,4-diamino-6-nitrotoluene	0.93	U	1.0	0.93	0.45
121-14-2	2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.93	U M	1.0	0.93	0.23
606-20-2	2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.088
618-87-1	3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14
99-08-1	3-Nitrotoluene	0.36	U	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.060
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
80251-29-2	DNX	0.26	U	0.52	0.26	0.10
2691-41-0	HMX	1.6	M	0.22	0.21	0.090
5755-27-1	MNX	0.21	J M	0.52	0.30	0.096
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.094
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.95
78-11-5	PETN	1.0	U	1.1	1.0	0.46
121-82-4	RDX	3.2	M	0.22	0.21	0.053
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033
13980-04-6	TNX	0.26	U	0.52	0.26	0.082

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120017.D
Lims ID: 280-182443-A-2-A
Client ID: WBGmw-009-230901-GW
Sample Type: Client
Inject. Date: 12-Oct-2023 16:23:49 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 19:23:09

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.435			ND	U
3 TNX	1		6.443			ND	
4 HMX	1	6.572	6.570	0.002	14318	0.1519	M
5 2,4-diamino-6-nitrotoluene	1		6.629			ND	
6 DNX	1		6.770			ND	
7 MNX	1	7.192	7.190	0.002	2873	0.0207	M
8 RDX	1	7.578	7.570	0.008	33913	0.3069	M
$ 10 1,2-Dinitrobenzene	1	8.518	8.510	0.008	24809	0.2002	M
11 1,3,5-Trinitrobenzene	1		8.637			ND	
12 1,3-Dinitrobenzene	1		9.243			ND	
13 Nitrobenzene	1		9.610			ND	
14 3,5-Dinitroaniline	1		9.823			ND	
15 Tetryl	1		9.956			ND	
16 Nitroglycerin	2		10.403			ND	
17 2,4,6-Trinitrotoluene	1		10.836			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20 2,6-Dinitrotoluene	1		11.416			ND	
21 2,4-Dinitrotoluene	1		11.583			ND	
22 o-Nitrotoluene	1		12.383			ND	
23 p-Nitrotoluene	1		12.790			ND	
24 m-Nitrotoluene	1		13.350			ND	
25 PETN	2		14.463			ND	

QC Flag Legend
Processing Flags

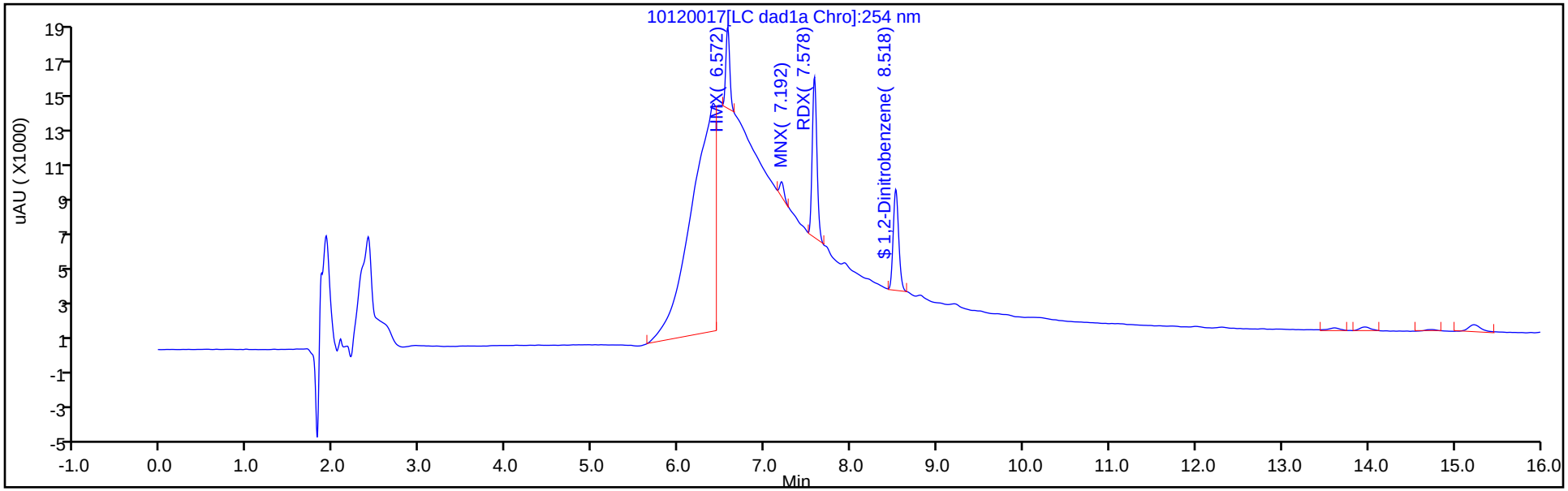
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 13-Oct-2023 09:16:38 Chrom Revision: 2.3 22-Sep-2023 11:33:50

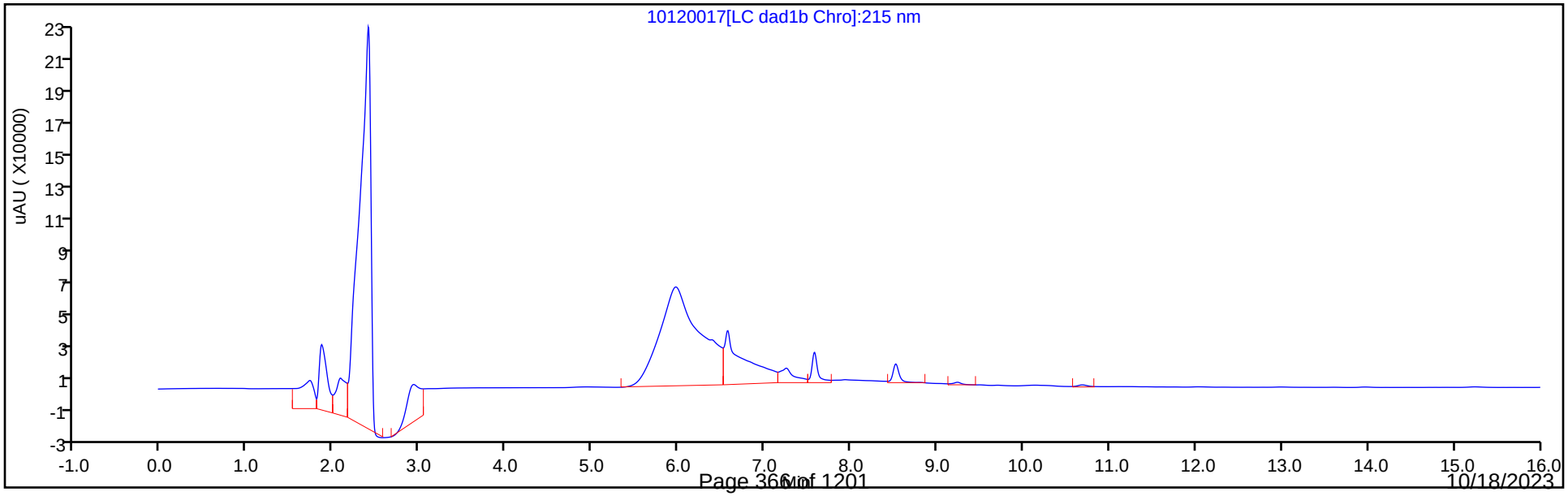
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120017.d				
Injection Date:	12-Oct-2023 16:23:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-A-2-A	Lab Sample ID:	280-182443-2	Worklist Smp#:	17
Client ID:	WBGmw-009-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120017.D				
Lims ID:	280-182443-A-2-A				
Client ID:	WBGmw-009-230901-GW				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 16:23:49	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 09:16:33	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 12-Oct-2023 19:23:09

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2002	100.11

Manual Integration/User Assign Peak Report

Eurofins Denver

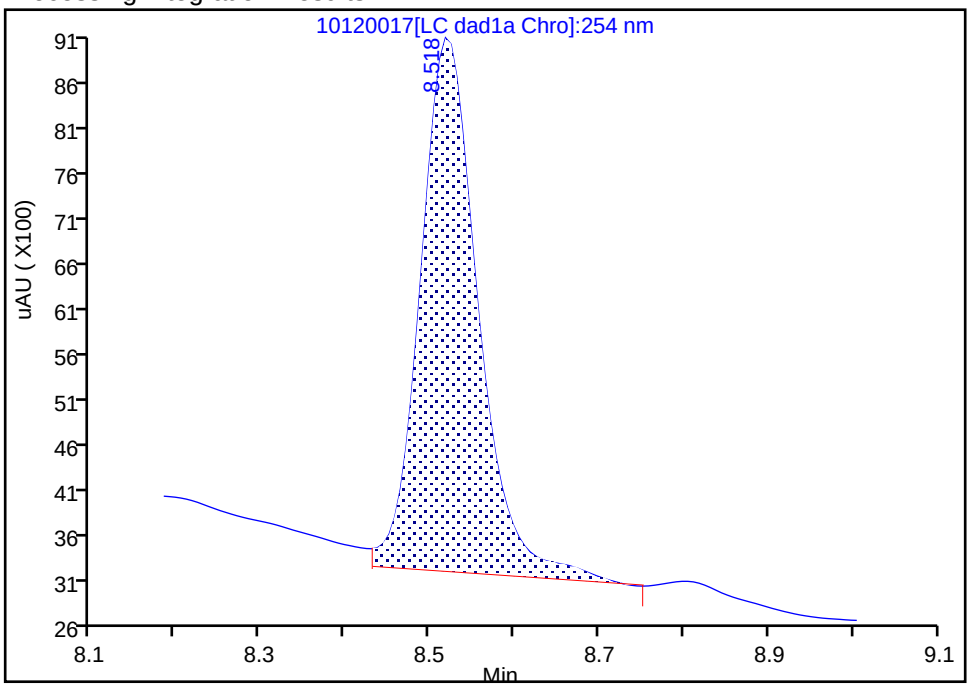
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120017.d				
Injection Date:	12-Oct-2023 16:23:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-2-A	Lab Sample ID:	280-182443-2		
Client ID:	WBGmw-009-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

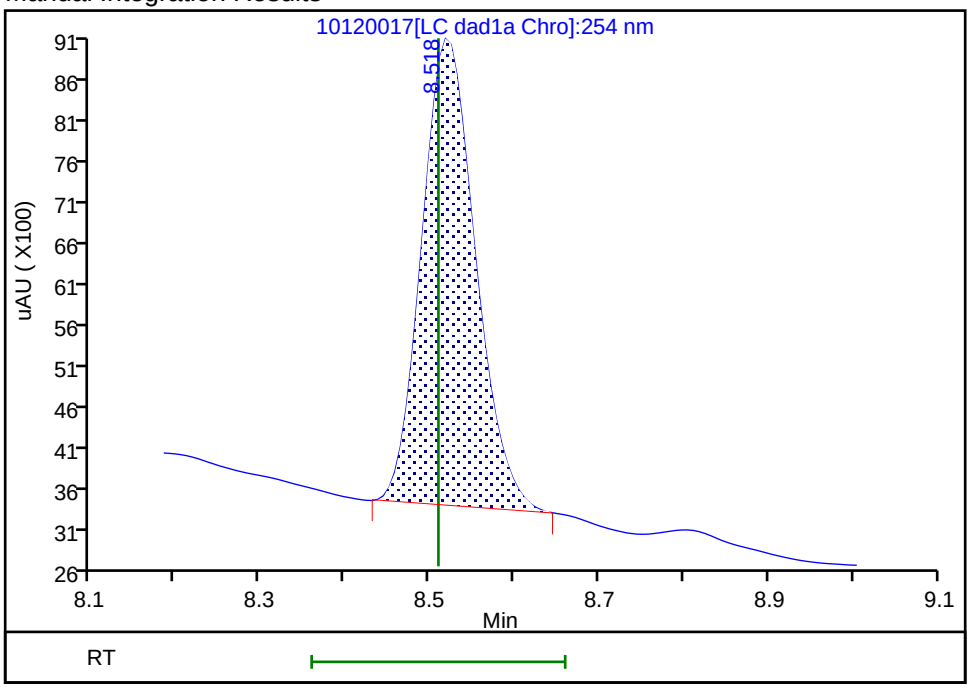
Processing Integration Results

RT: 8.52
Area: 27910
Amount: 0.225243
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 24809
Amount: 0.200216
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:23:15 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

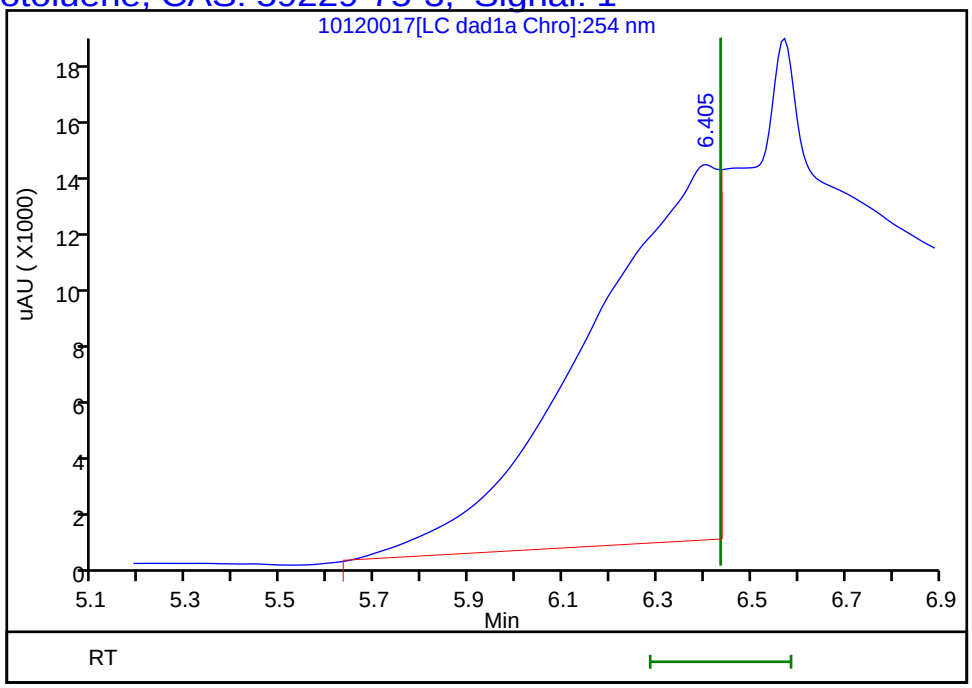
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120017.d
Injection Date: 12-Oct-2023 16:23:49 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-2-A Lab Sample ID: 280-182443-2
Client ID: WBGmw-009-230901-GW
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3, Signal: 1

RT: 6.40
Response: 247092
Amount: 1.095435



Reviewer: LV5D, 12-Oct-2023 19:23:09
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins Denver

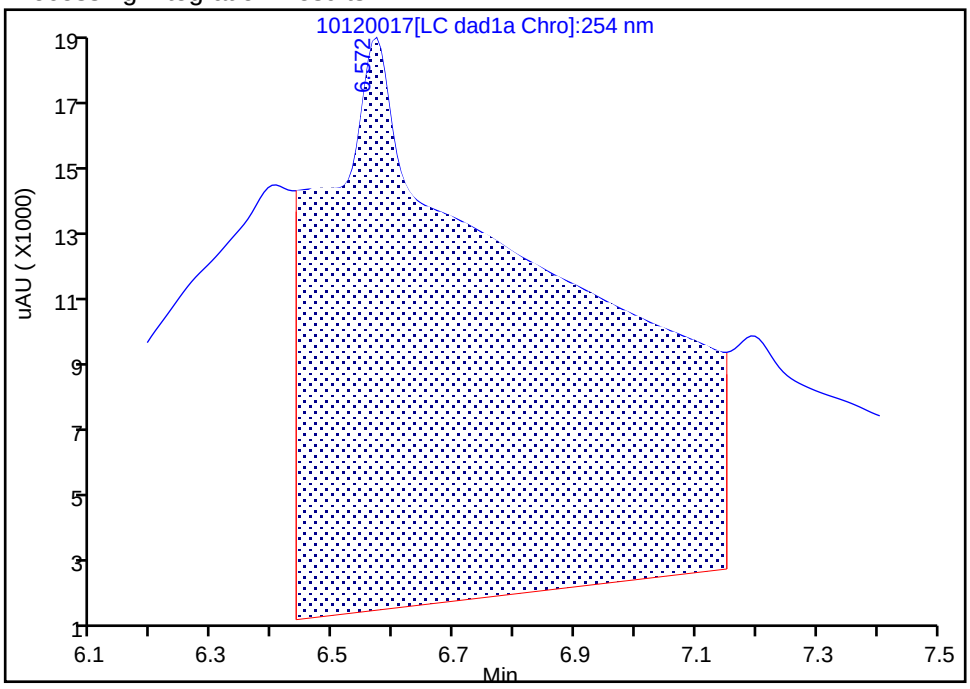
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120017.d				
Injection Date:	12-Oct-2023 16:23:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-2-A	Lab Sample ID:	280-182443-2		
Client ID:	WBGmw-009-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

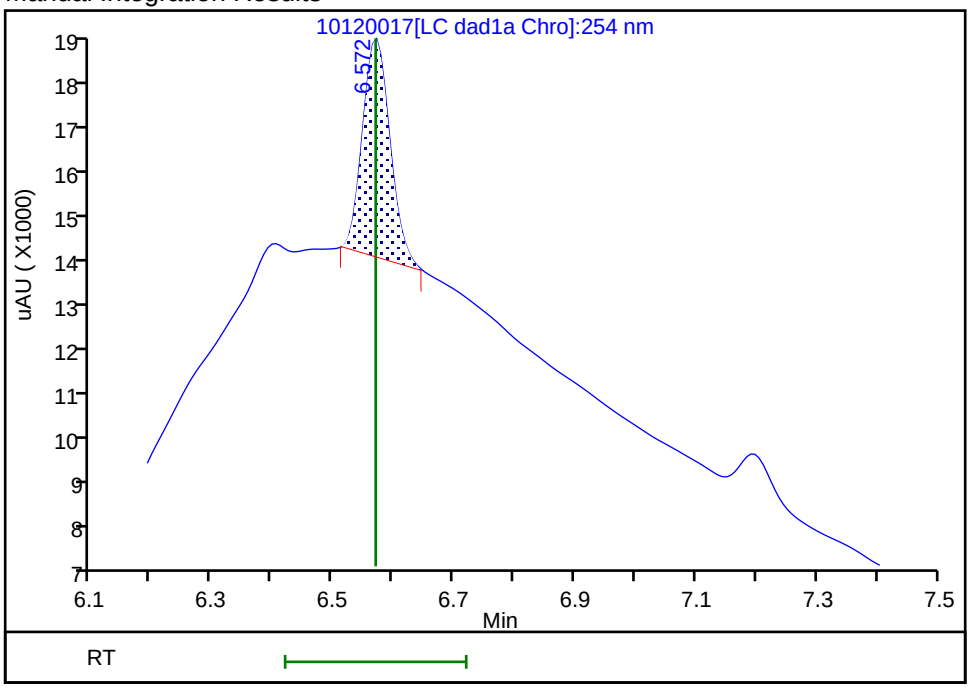
Processing Integration Results

RT: 6.57
Area: 434030
Amount: 4.604831
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 14318
Amount: 0.151906
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:23:03 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

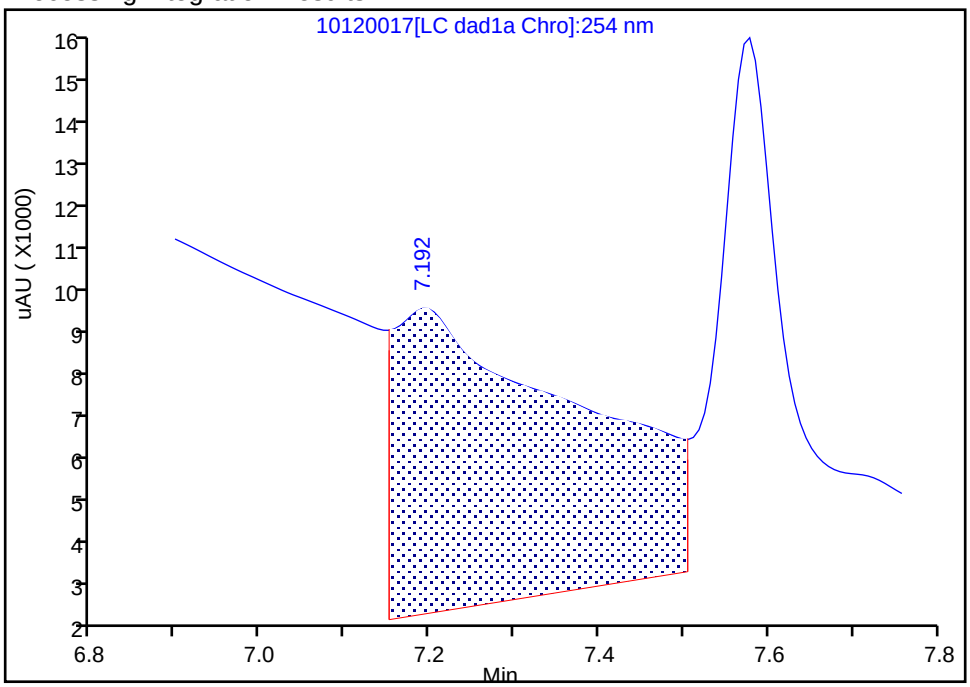
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120017.d				
Injection Date:	12-Oct-2023 16:23:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-2-A	Lab Sample ID:	280-182443-2		
Client ID:	WBGmw-009-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

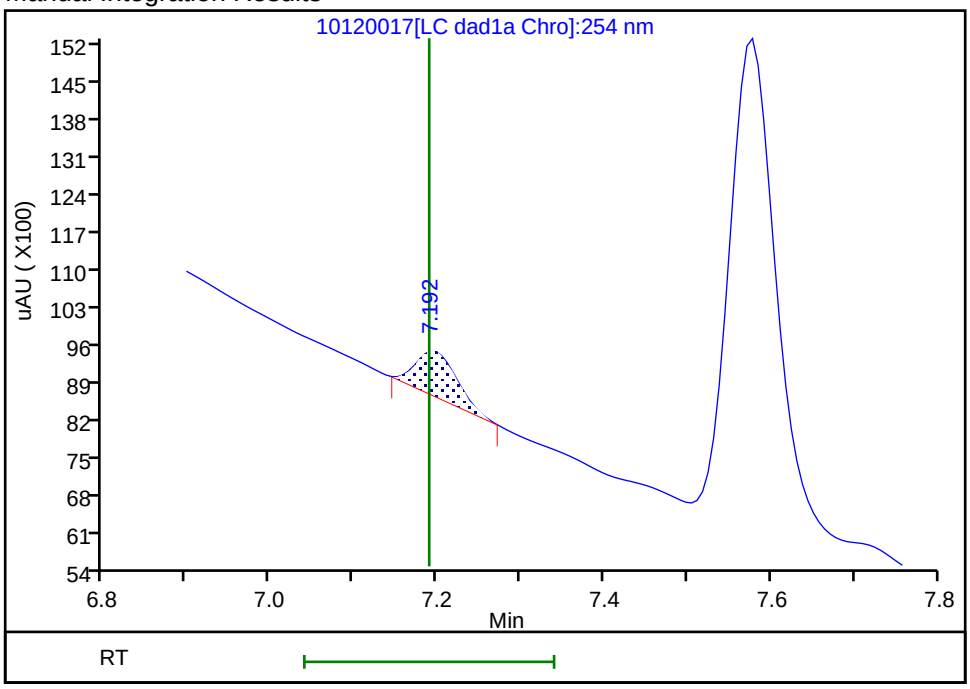
Processing Integration Results

RT: 7.19
Area: 97708
Amount: 0.704513
Amount Units: ug/mL



Manual Integration Results

RT: 7.19
Area: 2873
Amount: 0.020715
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:23:06 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

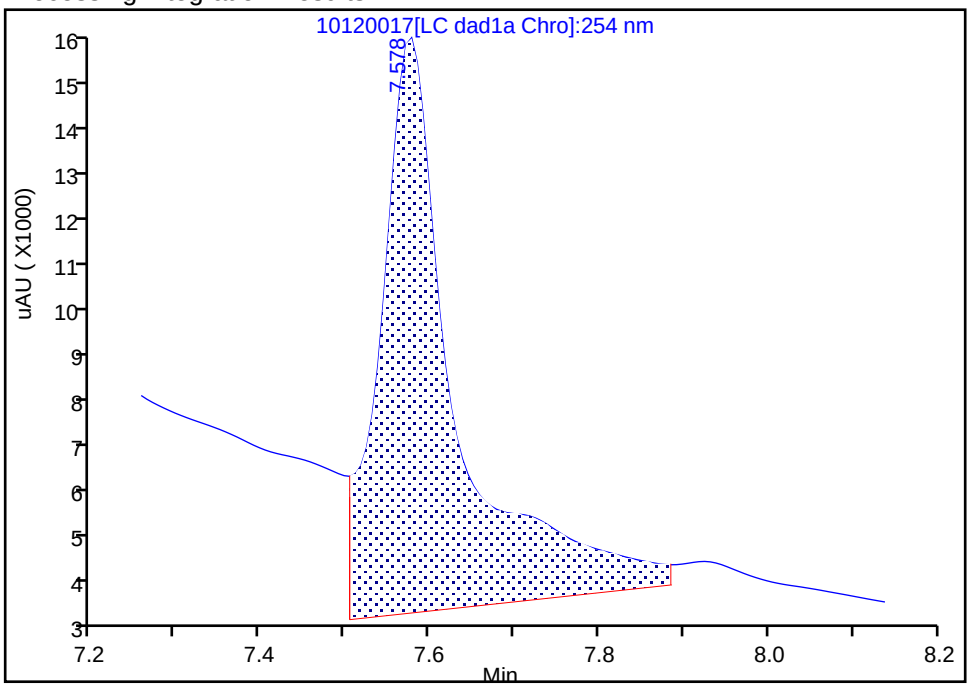
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120017.d				
Injection Date:	12-Oct-2023 16:23:49	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-2-A	Lab Sample ID:	280-182443-2		
Client ID:	WBGmw-009-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

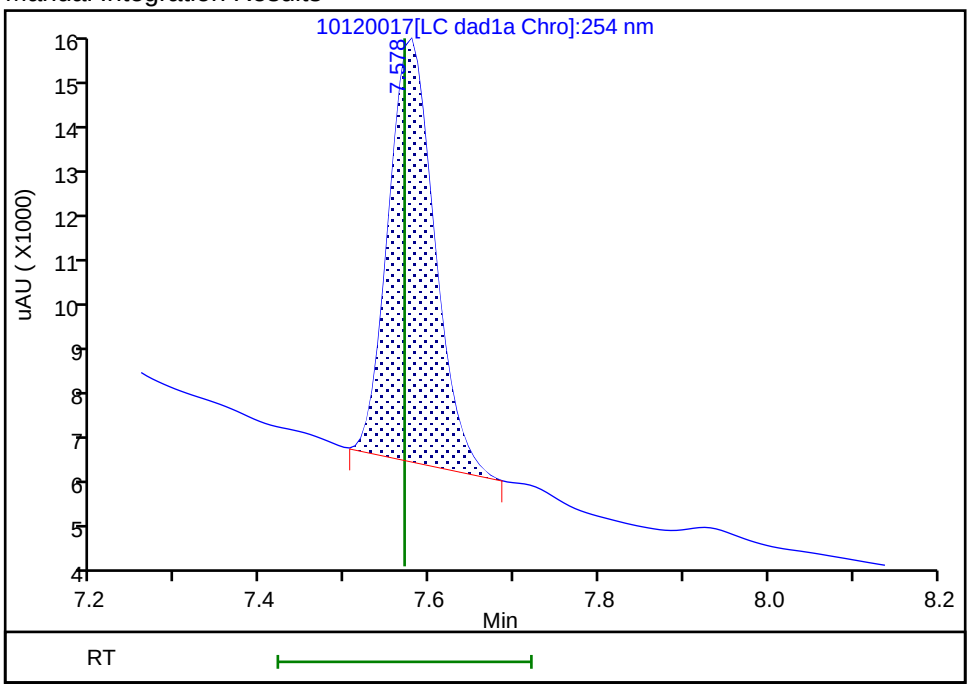
Processing Integration Results

RT: 7.58
Area: 71510
Amount: 0.647191
Amount Units: ug/mL



Manual Integration Results

RT: 7.58
Area: 33913
Amount: 0.306925
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:23:08 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-009-230901-GW | Lab Sample ID: 280-182443-2

Matrix: Water | Lab File ID: 10130015.D

Analysis Method: 8330B | Date Collected: 10/04/2023 10:00

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 484.1(mL) | Date Analyzed: 10/13/2023 20:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629680 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130015.D
Lims ID: 280-182443-A-2-A
Client ID: WBGmw-009-230901-GW
Sample Type: Client
Inject. Date: 13-Oct-2023 20:13:35 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 14:31:09 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 14-Oct-2023 14:15:46

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1	2,6-diamino-4-nitrotoluene	1		4.218			ND	
2	2,4-diamino-6-nitrotoluene	1		4.852			ND	
3	TNX	1		5.305			ND	
4	DNX	1		6.185			ND	
5	HMX	1	6.833	6.852	-0.019	29108	0.1531	
6	MNX	1	7.706	7.718	-0.012	3861	0.0146	M
8	RDX	1	9.126	9.152	-0.026	67765	0.3073	
9	Nitrobenzene	1		11.752			ND	
$ 10	1,2-Dinitrobenzene	1	12.720	12.752	-0.032	49579	0.1859	
11	3,5-Dinitroaniline	1		14.598			ND	
12	1,3-Dinitrobenzene	1		14.858			ND	
13	Nitroglycerin	2		15.425			ND	
14	o-Nitrotoluene	1		16.012			ND	U
16	p-Nitrotoluene	1		16.245			ND	
17	4-Amino-2,6-dinitrotoluene	1		16.778			ND	
18	m-Nitrotoluene	1		17.105			ND	
19	2-Amino-4,6-dinitrotoluene	1		17.638			ND	U
20	1,3,5-Trinitrobenzene	1		17.665			ND	
21	2,6-Dinitrotoluene	1	18.833	18.932	-0.099	2932	0.0107	
22	2,4-Dinitrotoluene	1		19.385			ND	
23	Tetryl	1		22.765			ND	
24	2,4,6-Trinitrotoluene	1		23.578			ND	
25	PETN	2		24.878			ND	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
U - Marked Undetected

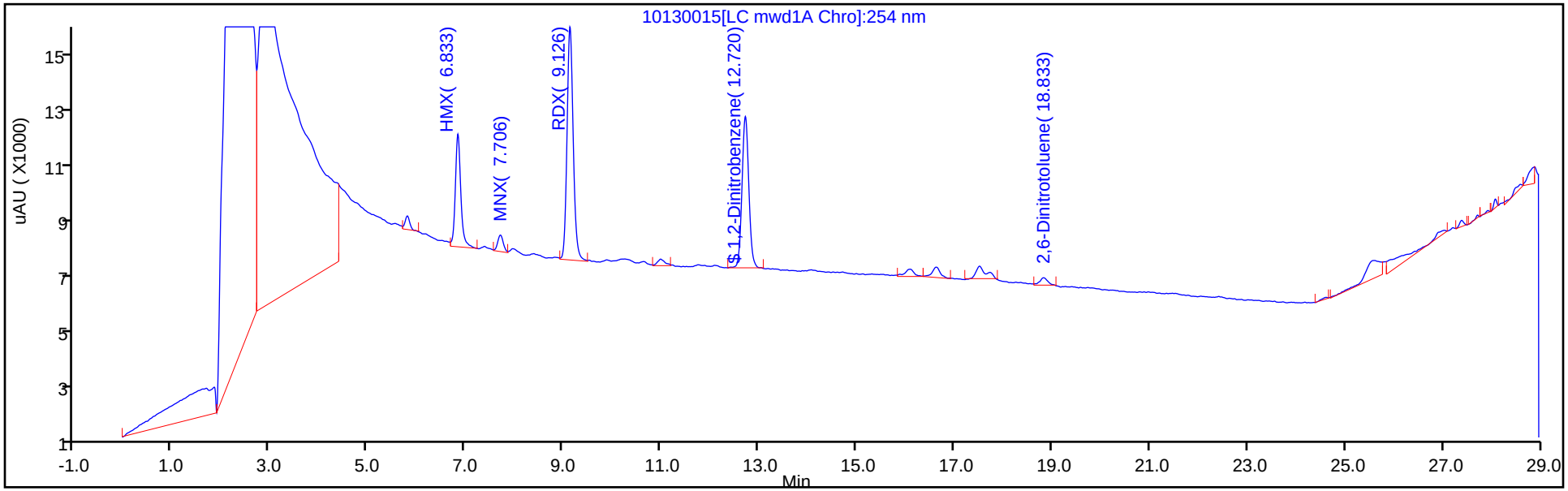
Report Date: 14-Oct-2023 14:31:09 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

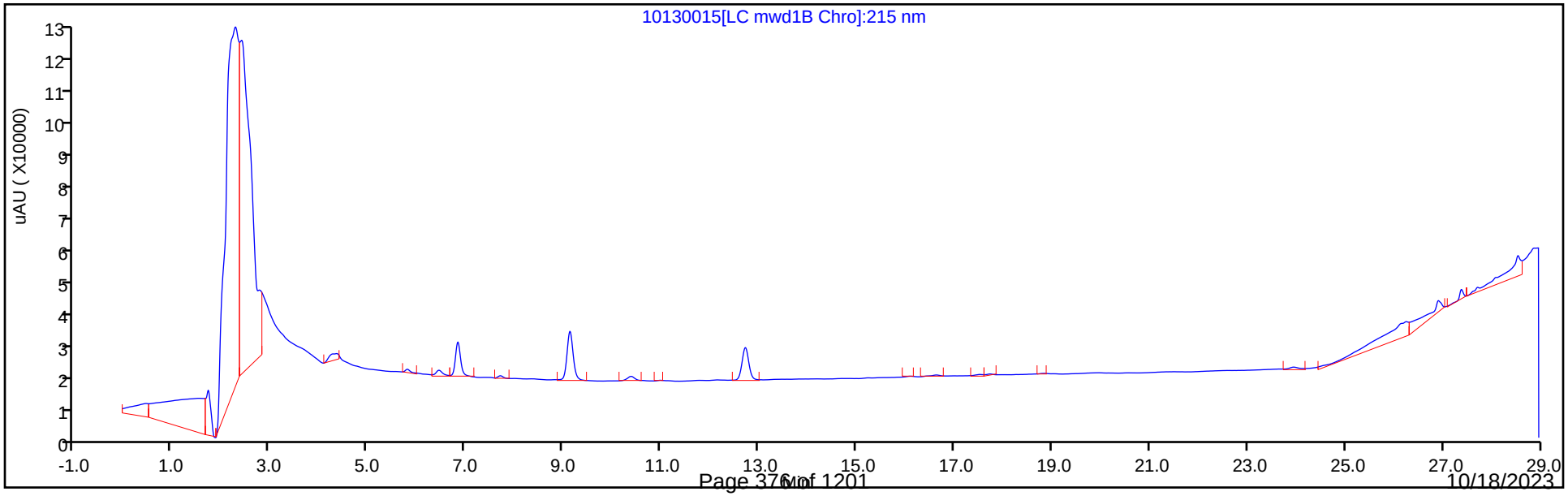
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130015.D

Injection Date:	13-Oct-2023 20:13:35	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	280-182443-A-2-A	Lab Sample ID:	280-182443-2	Worklist Smp#:	15
Client ID:	WBGmw-009-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130015.D				
Lims ID:	280-182443-A-2-A				
Client ID:	WBGmw-009-230901-GW				
Sample Type:	Client				
Inject. Date:	13-Oct-2023 20:13:35	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-2-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	14-Oct-2023 14:31:09	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1649				

First Level Reviewer: LV5D Date: 14-Oct-2023 14:15:46

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1859	92.93

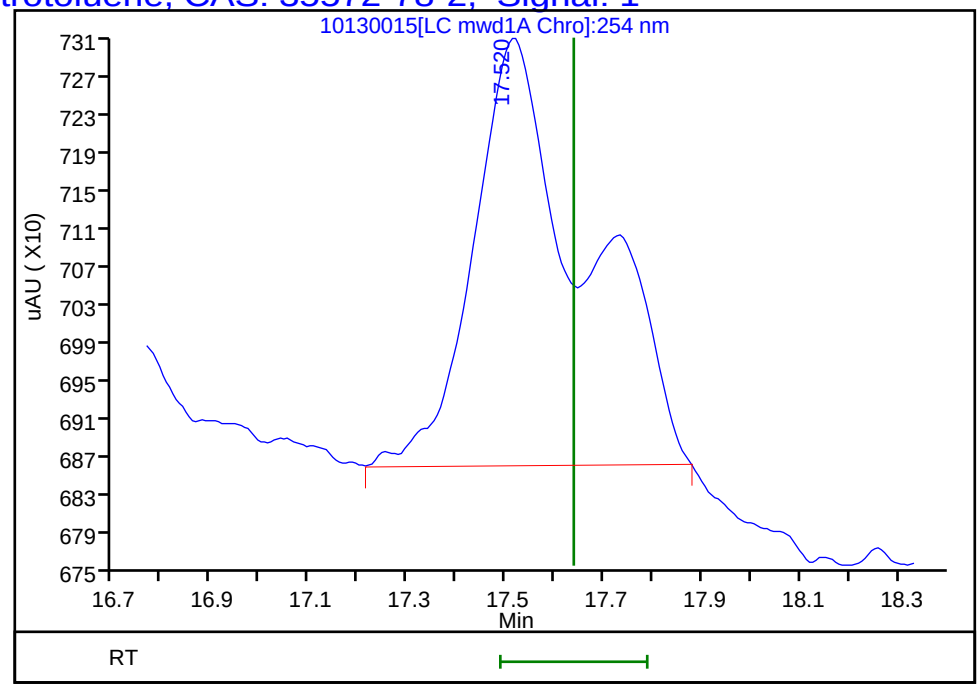
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130015.D				
Injection Date:	13-Oct-2023 20:13:35	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-2-A	Lab Sample ID:	280-182443-2		
Client ID:	WBGmw-009-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 17.52
Response: 7031
Amount: 0.017944



Reviewer: LV5D, 14-Oct-2023 14:15:46
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

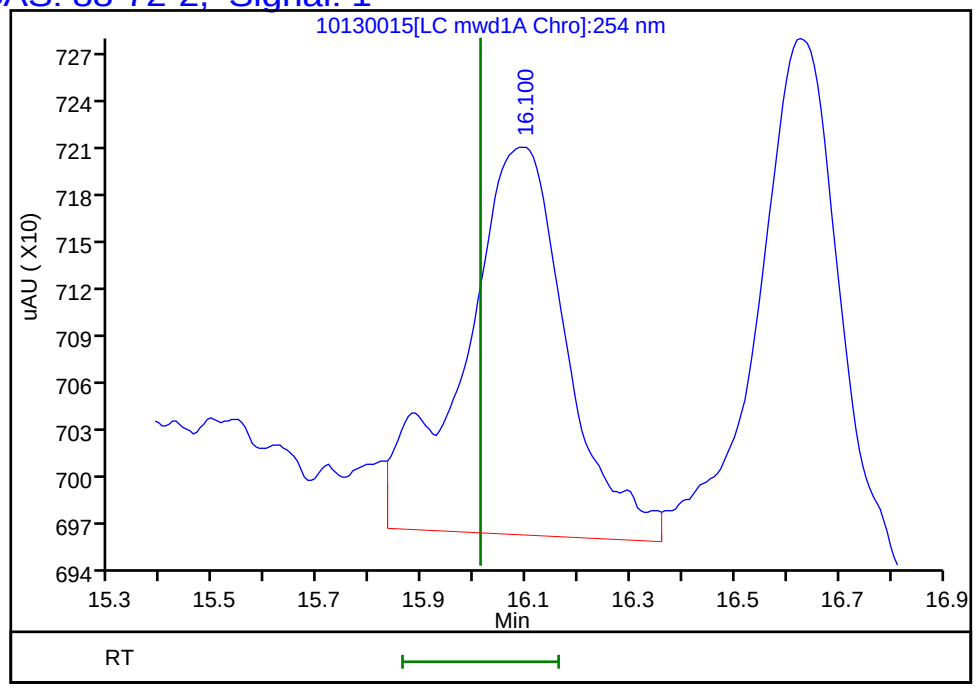
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130015.D				
Injection Date:	13-Oct-2023 20:13:35	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-2-A	Lab Sample ID:	280-182443-2		
Client ID:	WBGmw-009-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 16.10
Response: 3341
Amount: 0.014062



Reviewer: LV5D, 14-Oct-2023 14:15:46
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

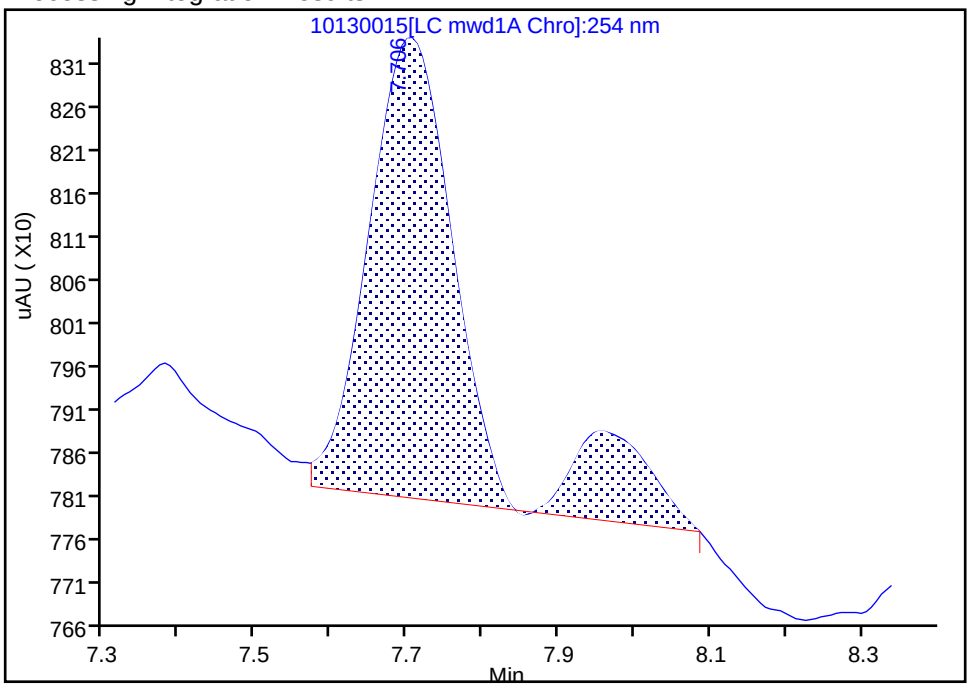
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130015.D				
Injection Date:	13-Oct-2023 20:13:35	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-2-A	Lab Sample ID:	280-182443-2		
Client ID:	WBGmw-009-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

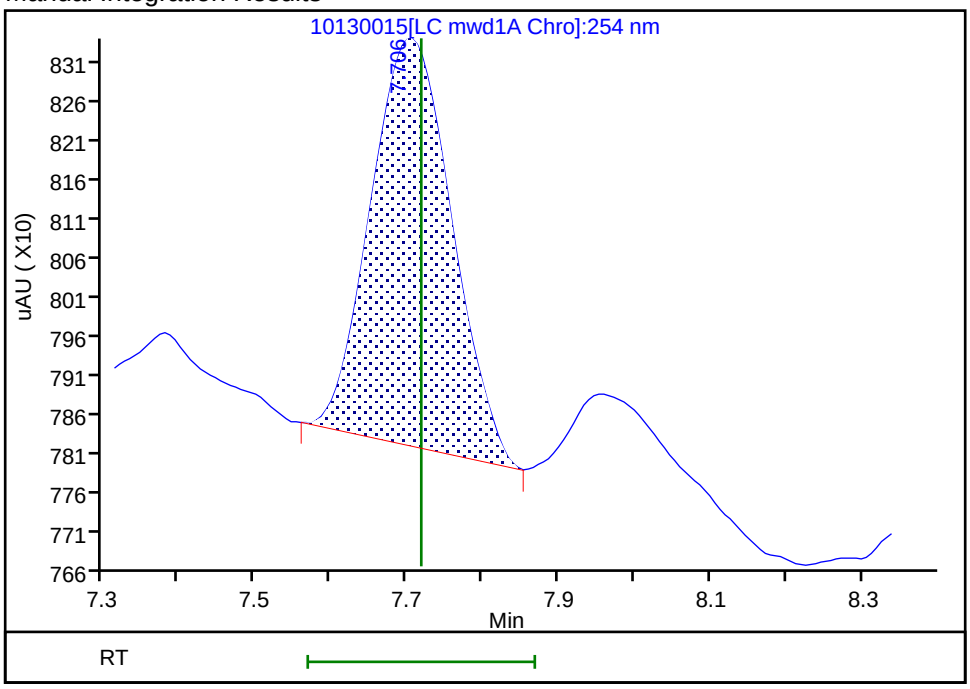
Processing Integration Results

RT: 7.71
Area: 4713
Amount: 0.017781
Amount Units: ug/ml



Manual Integration Results

RT: 7.71
Area: 3861
Amount: 0.014566
Amount Units: ug/ml



Reviewer: LV5D, 14-Oct-2023 14:15:45 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-014-230901-GW | Lab Sample ID: 280-182443-3

Matrix: Water | Lab File ID: 10120018.D

Analysis Method: 8330B | Date Collected: 10/04/2023 10:25

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 485.1(mL) | Date Analyzed: 10/12/2023 16:46

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046
6629-29-4	2,4-diamino-6-nitrotoluene	0.93	U	1.0	0.93	0.45
121-14-2	2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.93	U	1.0	0.93	0.23
606-20-2	2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.088
618-87-1	3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14
99-08-1	3-Nitrotoluene	0.36	U	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
80251-29-2	DNX	0.26	U	0.52	0.26	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.090
5755-27-1	MNX	0.30	U	0.52	0.30	0.096
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.094
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.95
78-11-5	PETN	1.0	U	1.1	1.0	0.46
121-82-4	RDX	0.21	U	0.22	0.21	0.053
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033
13980-04-6	TNX	0.26	U M	0.52	0.26	0.082

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120018.D
Lims ID: 280-182443-A-3-A
Client ID: WBGmw-014-230901-GW
Sample Type: Client
Inject. Date: 12-Oct-2023 16:46:49 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-3-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 19:23:20

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.435			ND	
3 TNX	1		6.443			ND	U
4 HMX	1		6.570			ND	
5 2,4-diamino-6-nitrotoluene	1		6.629			ND	
6 DNX	1		6.770			ND	
7 MNX	1		7.190			ND	
8 RDX	1		7.570			ND	
$ 10 1,2-Dinitrobenzene	1	8.521	8.510	0.011	24788	0.2000	
11 1,3,5-Trinitrobenzene	1		8.637			ND	
12 1,3-Dinitrobenzene	1		9.243			ND	
13 Nitrobenzene	1		9.610			ND	
14 3,5-Dinitroaniline	1		9.823			ND	
15 Tetryl	1		9.956			ND	
16 Nitroglycerin	2		10.403			ND	
17 2,4,6-Trinitrotoluene	1		10.836			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20 2,6-Dinitrotoluene	1		11.416			ND	
21 2,4-Dinitrotoluene	1		11.583			ND	
22 o-Nitrotoluene	1		12.383			ND	
23 p-Nitrotoluene	1		12.790			ND	
24 m-Nitrotoluene	1		13.350			ND	
25 PETN	2		14.463			ND	

QC Flag Legend

Processing Flags
Review Flags
U - Marked Undetected

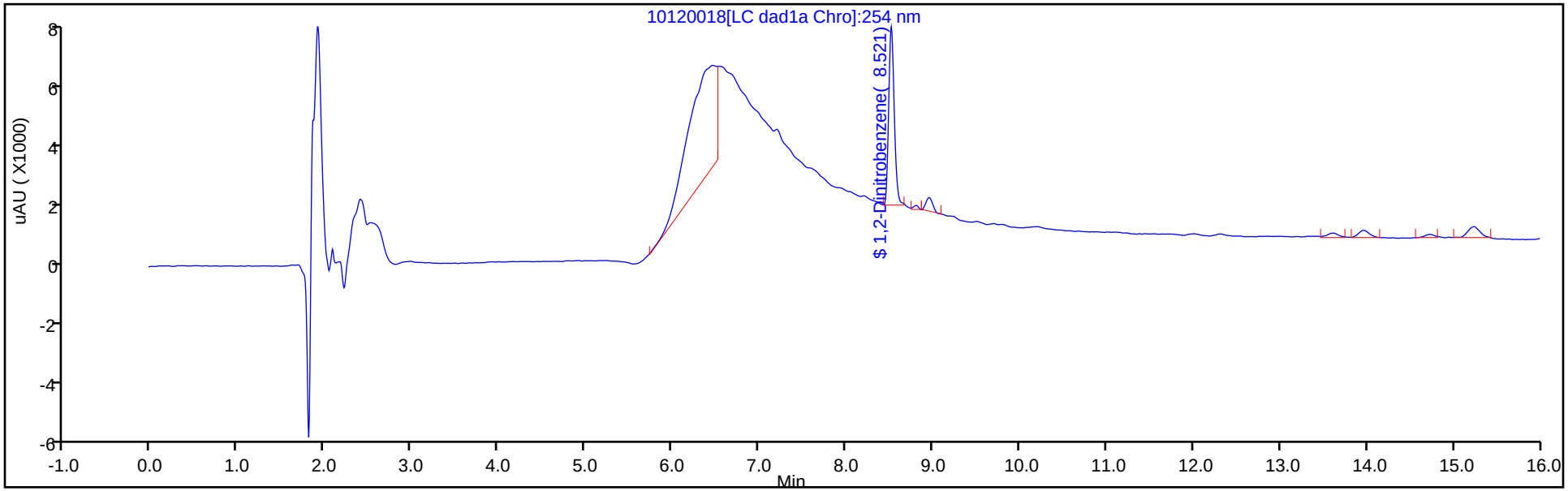
Report Date: 13-Oct-2023 09:16:39 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

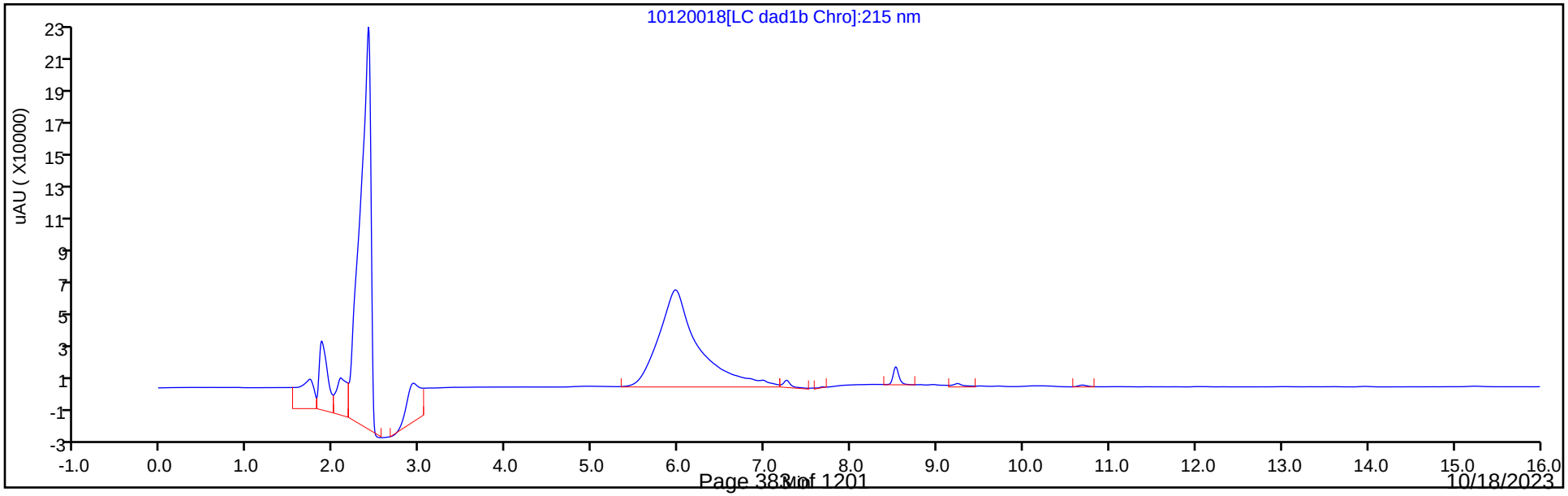
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120018.d

Injection Date:	12-Oct-2023 16:46:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-A-3-A	Lab Sample ID:	280-182443-3	Worklist Smp#:	18
Client ID:	WBGmw-014-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120018.D				
Lims ID:	280-182443-A-3-A				
Client ID:	WBGmw-014-230901-GW				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 16:46:49	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-3-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 09:16:33	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 12-Oct-2023 19:23:20

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2000	100.02

User Disabled Compound Report

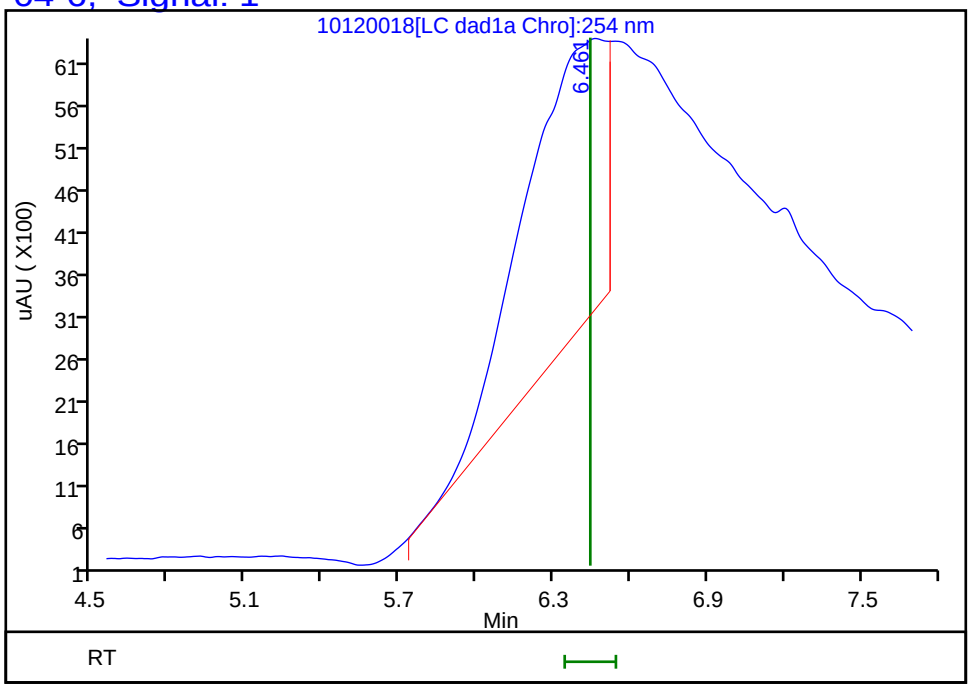
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120018.d
Injection Date: 12-Oct-2023 16:46:49 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-3-A Lab Sample ID: 280-182443-3
Client ID: WBGmw-014-230901-GW
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6, Signal: 1

RT: 6.46
Response: 77564
Amount: 0.386350



Reviewer: LV5D, 12-Oct-2023 19:23:20
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-006-230901-GW | Lab Sample ID: 280-182443-4

Matrix: Water | Lab File ID: 10120019.D

Analysis Method: 8330B | Date Collected: 10/04/2023 11:20

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 478.3(mL) | Date Analyzed: 10/12/2023 17:09

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.088
99-65-0	1,3-Dinitrobenzene	0.10	U M	0.11	0.10	0.039
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047
6629-29-4	2,4-diamino-6-nitrotoluene	0.94	U	1.0	0.94	0.45
121-14-2	2,4-Dinitrotoluene	0.084	U	0.10	0.084	0.029
59229-75-3	2,6-diamino-4-nitrotoluene	0.94	U M	1.0	0.94	0.23
606-20-2	2,6-Dinitrotoluene	0.084	U	0.10	0.084	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.089
618-87-1	3,5-Dinitroaniline	0.31	U	0.42	0.31	0.14
99-08-1	3-Nitrotoluene	0.37	U	0.42	0.37	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.060
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.10
80251-29-2	DNX	0.26	U	0.52	0.26	0.10
2691-41-0	HMX	3.2	M	0.22	0.21	0.092
5755-27-1	MNX	0.37	J M	0.52	0.30	0.097
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.095
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.96
78-11-5	PETN	1.0	U	1.1	1.0	0.47
121-82-4	RDX	6.6	M	0.22	0.21	0.054
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033
13980-04-6	TNX	0.26	U	0.52	0.26	0.083

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	88	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120019.D
Lims ID: 280-182443-A-4-A
Client ID: WBGmw-006-230901-GW
Sample Type: Client
Inject. Date: 12-Oct-2023 17:09:47 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-4-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 19:23:43

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.435			ND	U
3 TNX	1		6.443			ND	
4 HMX	1	6.573	6.570	0.003	28637	0.3038	M
5 2,4-diamino-6-nitrotoluene	1		6.629			ND	
6 DNX	1		6.770			ND	
7 MNX	1	7.200	7.190	0.010	4960	0.0358	M
8 RDX	1	7.580	7.570	0.010	69588	0.6298	M
$ 10 1,2-Dinitrobenzene	1	8.520	8.510	0.010	21698	0.1751	M
11 1,3,5-Trinitrobenzene	1		8.637			ND	
12 1,3-Dinitrobenzene	1		9.243			ND	U
13 Nitrobenzene	1		9.610			ND	
14 3,5-Dinitroaniline	1		9.823			ND	
15 Tetryl	1		9.956			ND	
16 Nitroglycerin	2		10.403			ND	
17 2,4,6-Trinitrotoluene	1		10.836			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20 2,6-Dinitrotoluene	1		11.416			ND	
21 2,4-Dinitrotoluene	1		11.583			ND	
22 o-Nitrotoluene	1		12.383			ND	
23 p-Nitrotoluene	1		12.790			ND	
24 m-Nitrotoluene	1		13.350			ND	
25 PETN	2		14.463			ND	

QC Flag Legend
Processing Flags

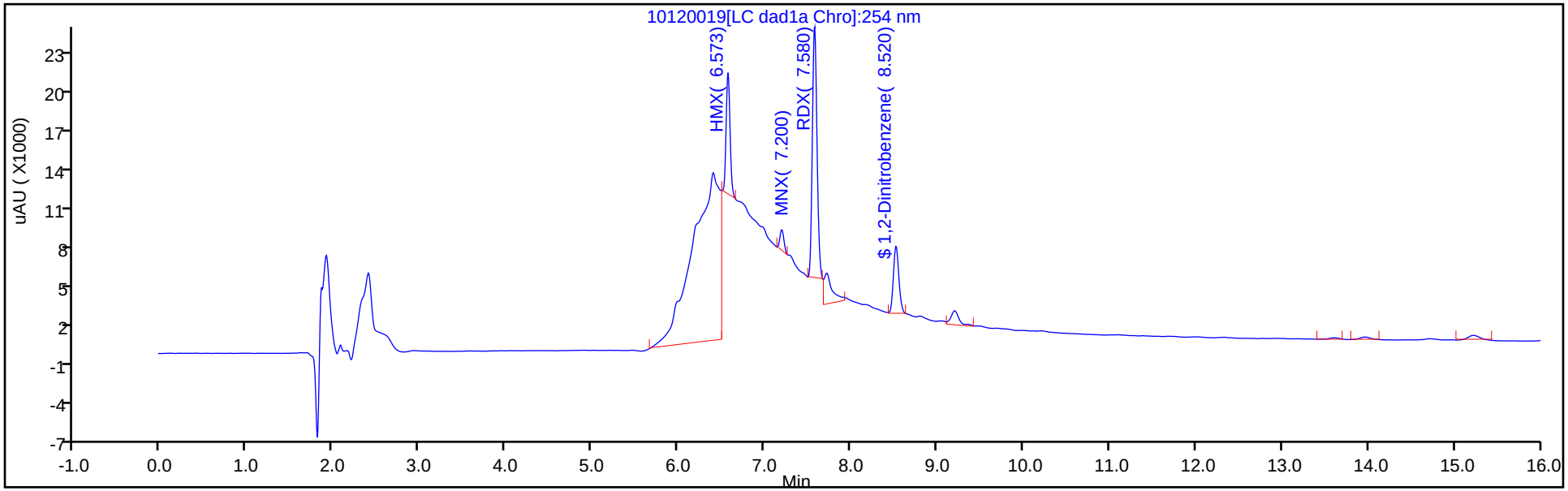
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 13-Oct-2023 09:16:40 Chrom Revision: 2.3 22-Sep-2023 11:33:50

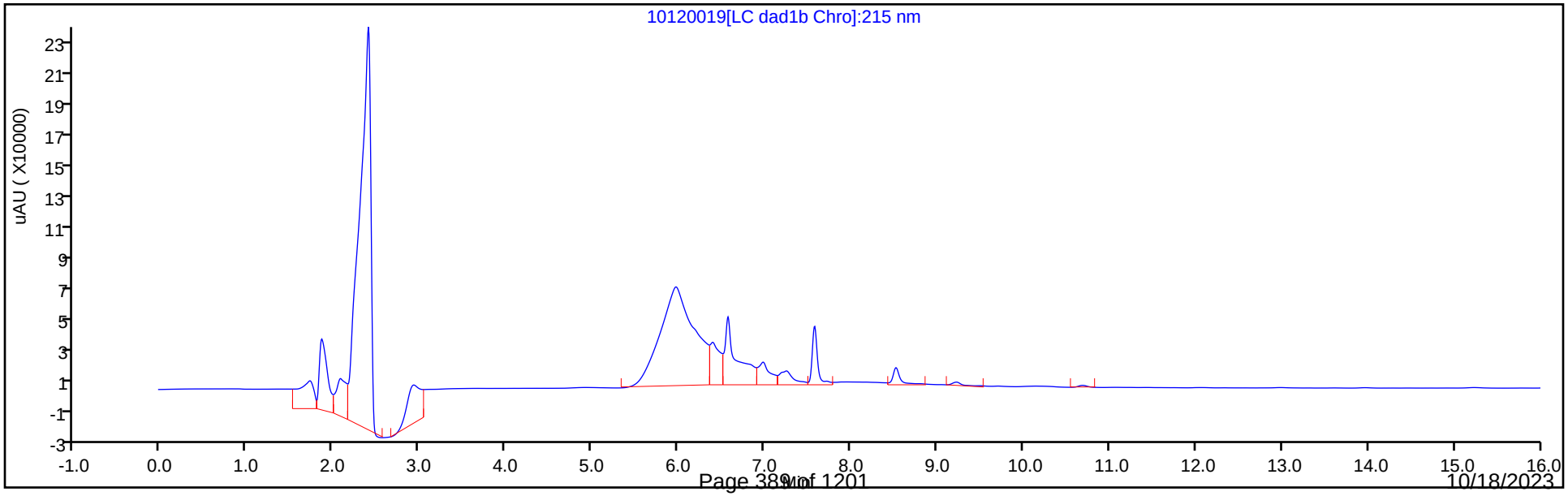
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120019.d				
Injection Date:	12-Oct-2023 17:09:47	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4	Worklist Smp#:	19
Client ID:	WBGmw-006-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120019.D				
Lims ID:	280-182443-A-4-A				
Client ID:	WBGmw-006-230901-GW				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 17:09:47	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-4-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 09:16:33	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 12-Oct-2023 19:23:43

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1751	87.55

Manual Integration/User Assign Peak Report

Eurofins Denver

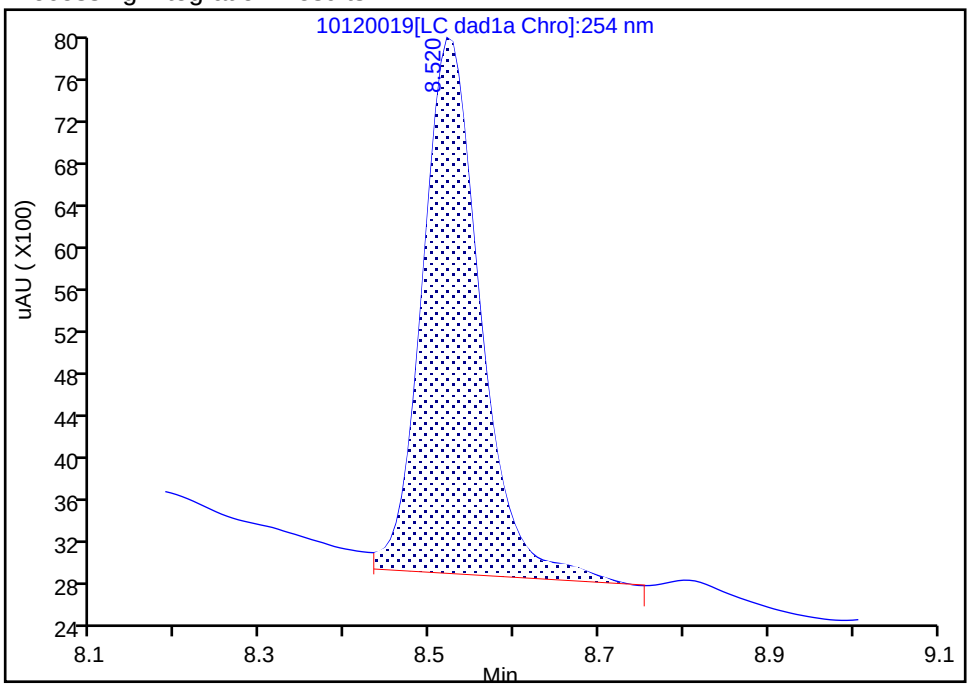
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120019.d				
Injection Date:	12-Oct-2023 17:09:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4		
Client ID:	WBGmw-006-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

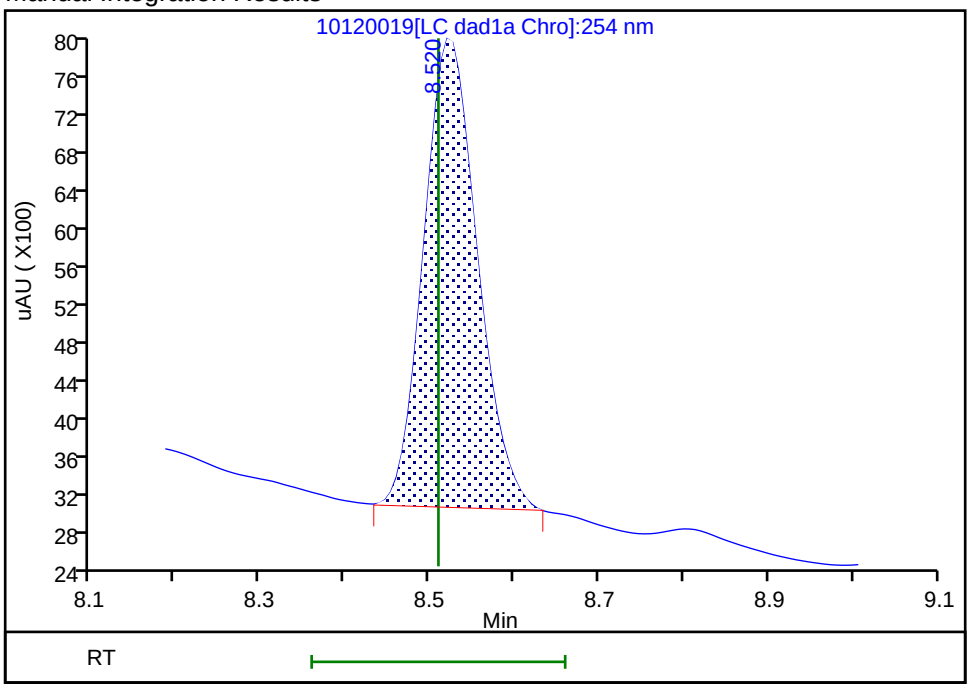
Processing Integration Results

RT: 8.52
Area: 24401
Amount: 0.196924
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 21698
Amount: 0.175110
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:23:42 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

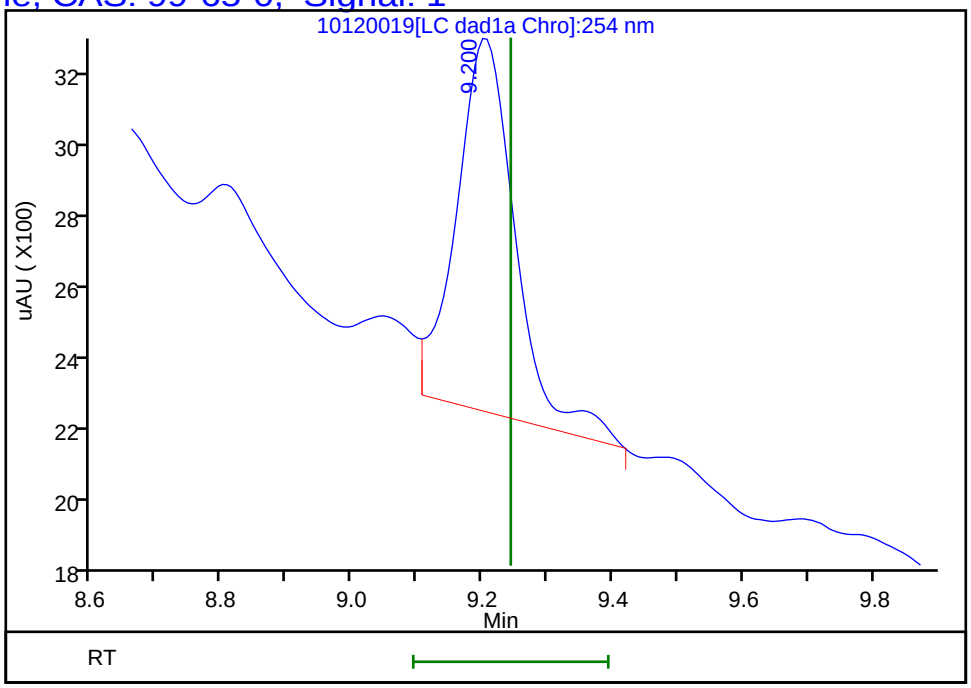
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120019.d
Injection Date: 12-Oct-2023 17:09:47 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-4-A Lab Sample ID: 280-182443-4
Client ID: WBGmw-006-230901-GW
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

12 1,3-Dinitrobenzene, CAS: 99-65-0, Signal: 1

RT: 9.20
Response: 6290
Amount: 0.021442



Reviewer: LV5D, 12-Oct-2023 19:23:43
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

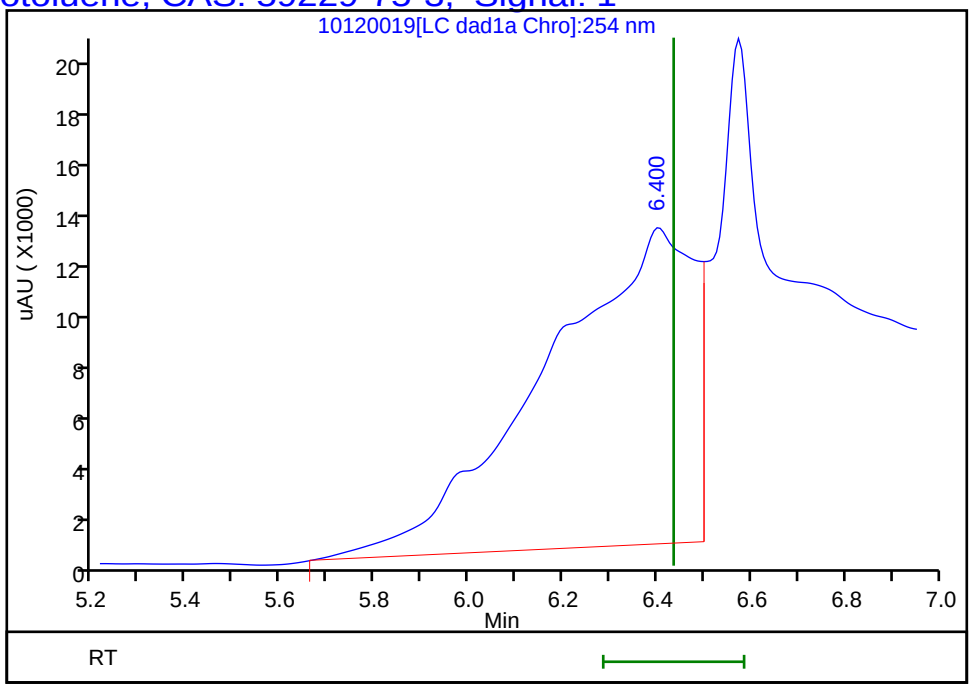
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120019.d
Injection Date: 12-Oct-2023 17:09:47 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-4-A Lab Sample ID: 280-182443-4
Client ID: WBGmw-006-230901-GW
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3, Signal: 1

RT: 6.40
Response: 274323
Amount: 1.216158



Reviewer: LV5D, 12-Oct-2023 19:23:43
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins Denver

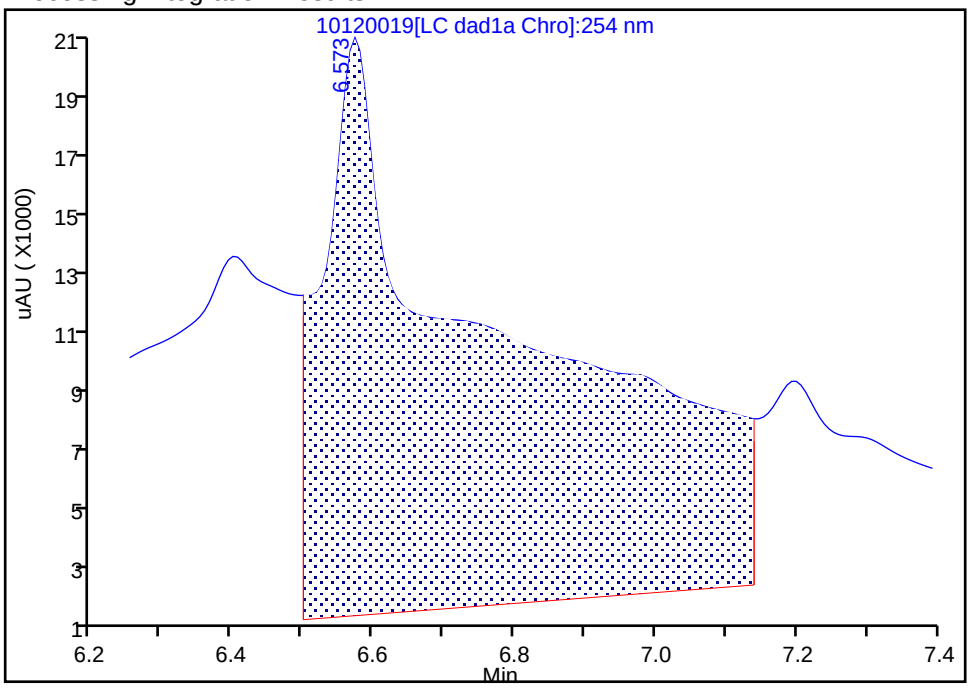
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120019.d				
Injection Date:	12-Oct-2023 17:09:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4		
Client ID:	WBGmw-006-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

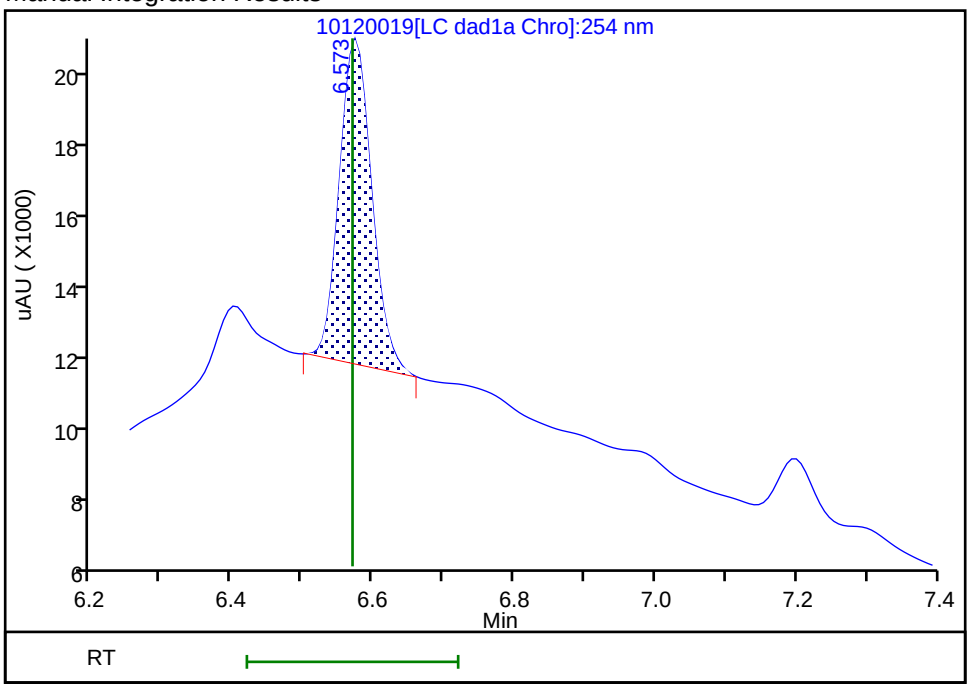
Processing Integration Results

RT: 6.57
Area: 357170
Amount: 3.789387
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 28637
Amount: 0.303824
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:23:31 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

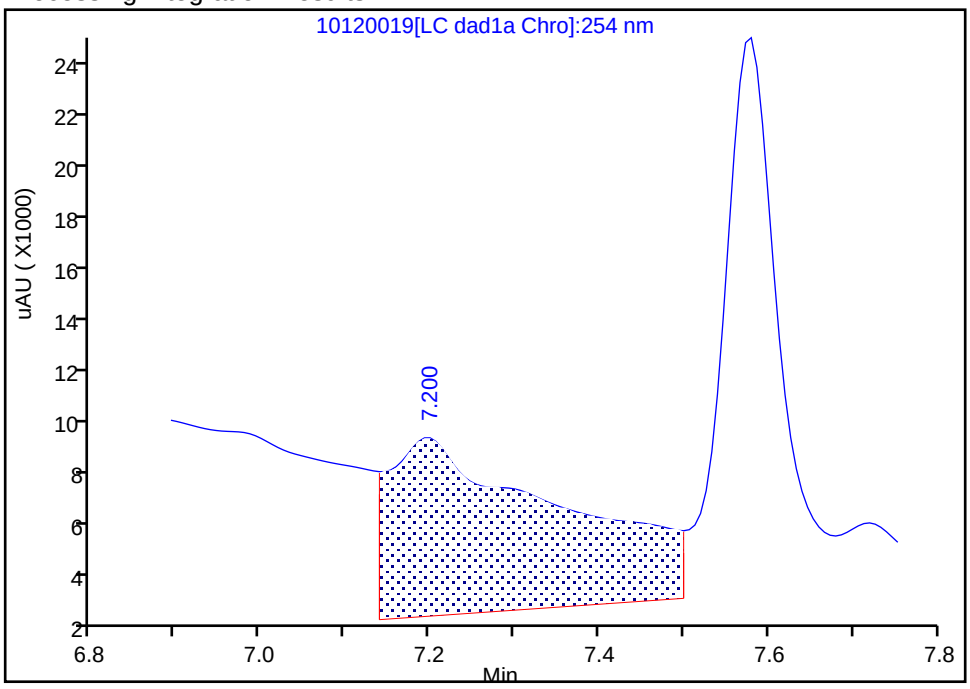
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120019.d				
Injection Date:	12-Oct-2023 17:09:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4		
Client ID:	WBGmw-006-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

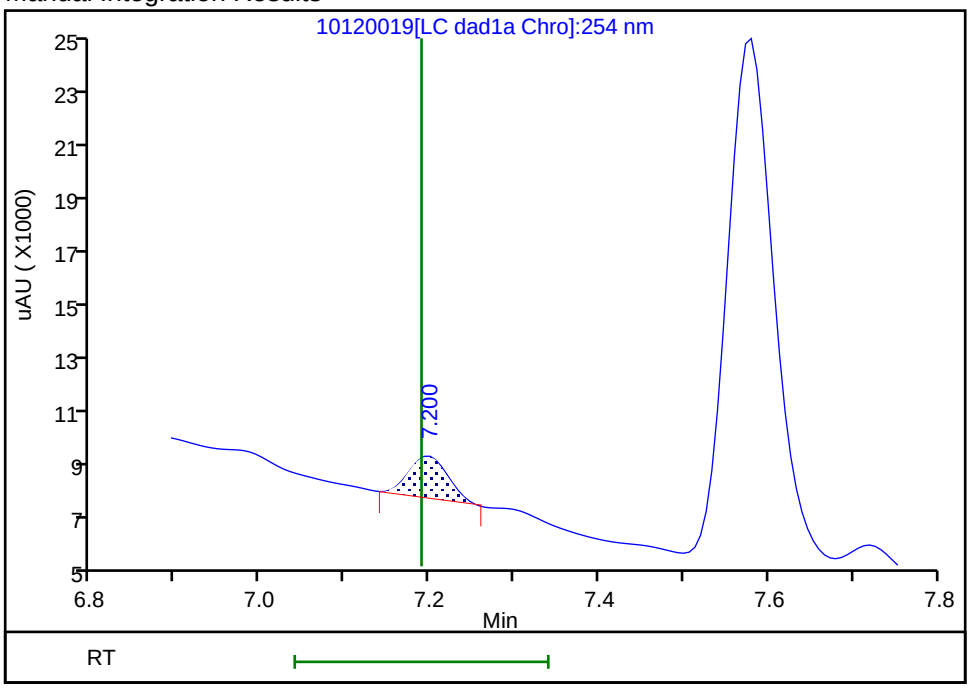
Processing Integration Results

RT: 7.20
Area: 93926
Amount: 0.677244
Amount Units: ug/mL



Manual Integration Results

RT: 7.20
Area: 4960
Amount: 0.035764
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:23:35 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

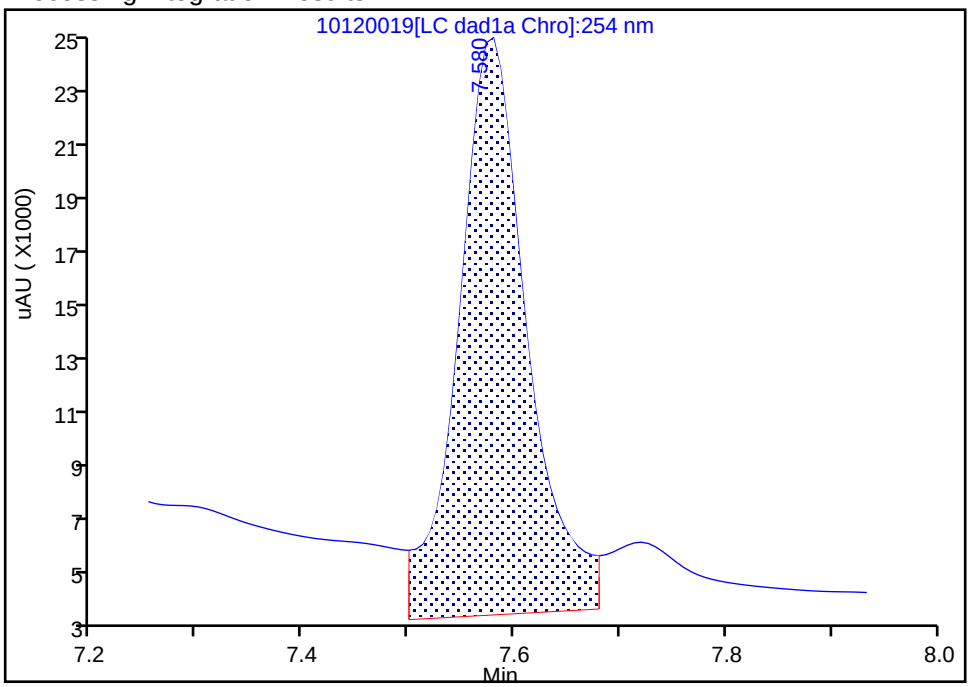
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120019.d				
Injection Date:	12-Oct-2023 17:09:47	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4		
Client ID:	WBGmw-006-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

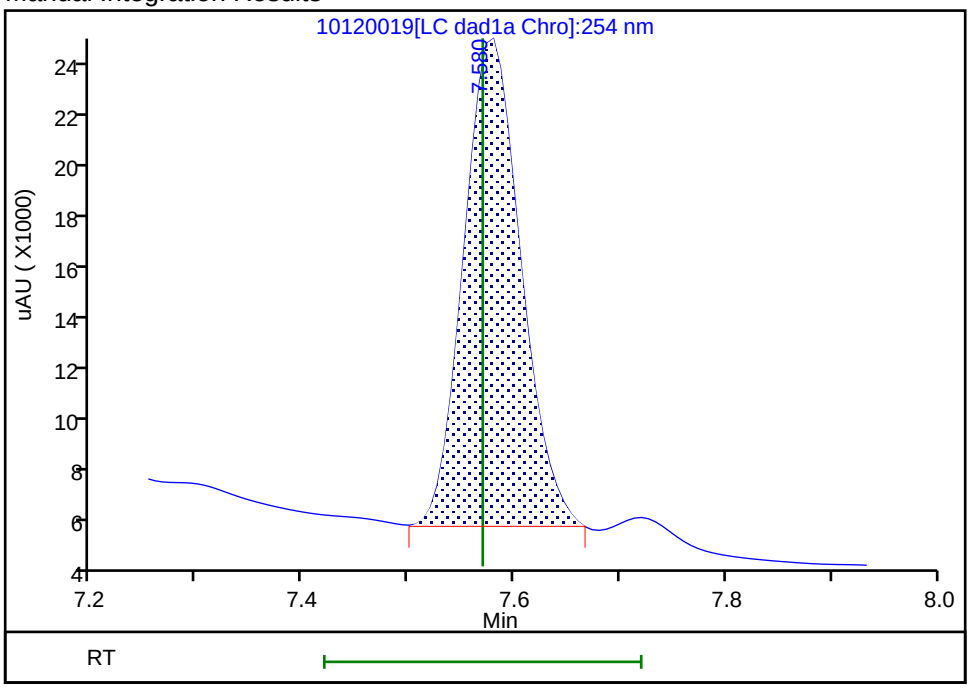
Processing Integration Results

RT: 7.58
Area: 94008
Amount: 0.850806
Amount Units: ug/mL



Manual Integration Results

RT: 7.58
Area: 69588
Amount: 0.629796
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:23:39 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-006-230901-GW | Lab Sample ID: 280-182443-4

Matrix: Water | Lab File ID: 10130016.D

Analysis Method: 8330B | Date Collected: 10/04/2023 11:20

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 478.3(mL) | Date Analyzed: 10/13/2023 20:48

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629680 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	80	Q	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130016.D
Lims ID: 280-182443-A-4-A
Client ID: WBGmw-006-230901-GW
Sample Type: Client
Inject. Date: 13-Oct-2023 20:48:34 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-4-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 14:31:09 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 14-Oct-2023 14:19:01

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1		4.218			ND	
	2 2,4-diamino-6-nitrotoluene	1		4.852			ND	M
	3 TNX	1	5.287	5.305	-0.018	1339	0.003408	M
	4 DNX	1		6.185			ND	
	5 HMX	1	6.841	6.852	-0.011	54767	0.2881	
	6 MNX	1	7.707	7.718	-0.011	8290	0.0313	M
	8 RDX	1	9.121	9.152	-0.031	141133	0.6401	
	9 Nitrobenzene	1		11.752			ND	7
$	10 1,2-Dinitrobenzene	1	12.714	12.752	-0.038	42889	0.1608	
	11 3,5-Dinitroaniline	1		14.598			ND	
	12 1,3-Dinitrobenzene	1		14.858			ND	
	13 Nitroglycerin	2		15.425			ND	
	14 o-Nitrotoluene	1		16.012			ND	U
	16 p-Nitrotoluene	1		16.245			ND	
	17 4-Amino-2,6-dinitrotoluene	1		16.778			ND	U
	18 m-Nitrotoluene	1		17.105			ND	
	19 2-Amino-4,6-dinitrotoluene	1		17.638			ND	U
	20 1,3,5-Trinitrobenzene	1		17.665			ND	
	21 2,6-Dinitrotoluene	1		18.932			ND	U
	22 2,4-Dinitrotoluene	1		19.385			ND	7
	23 Tetryl	1		22.765			ND	
	24 2,4,6-Trinitrotoluene	1		23.578			ND	
	25 PETN	2		24.878			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated
U - Marked Undetected

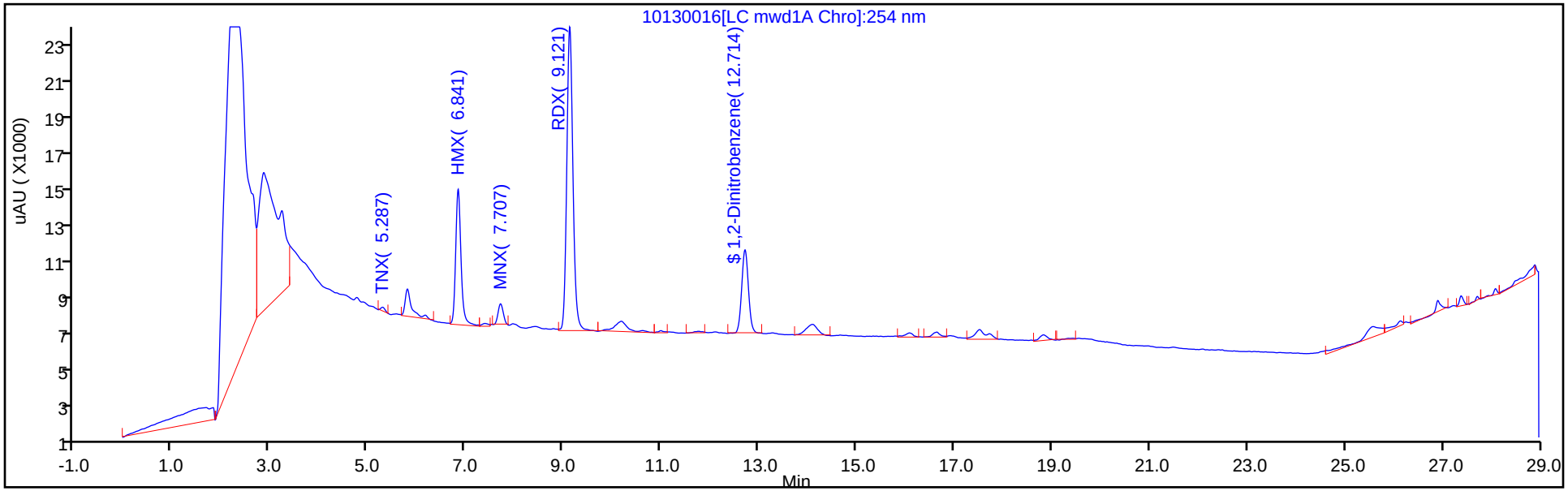
Report Date: 14-Oct-2023 14:31:10 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

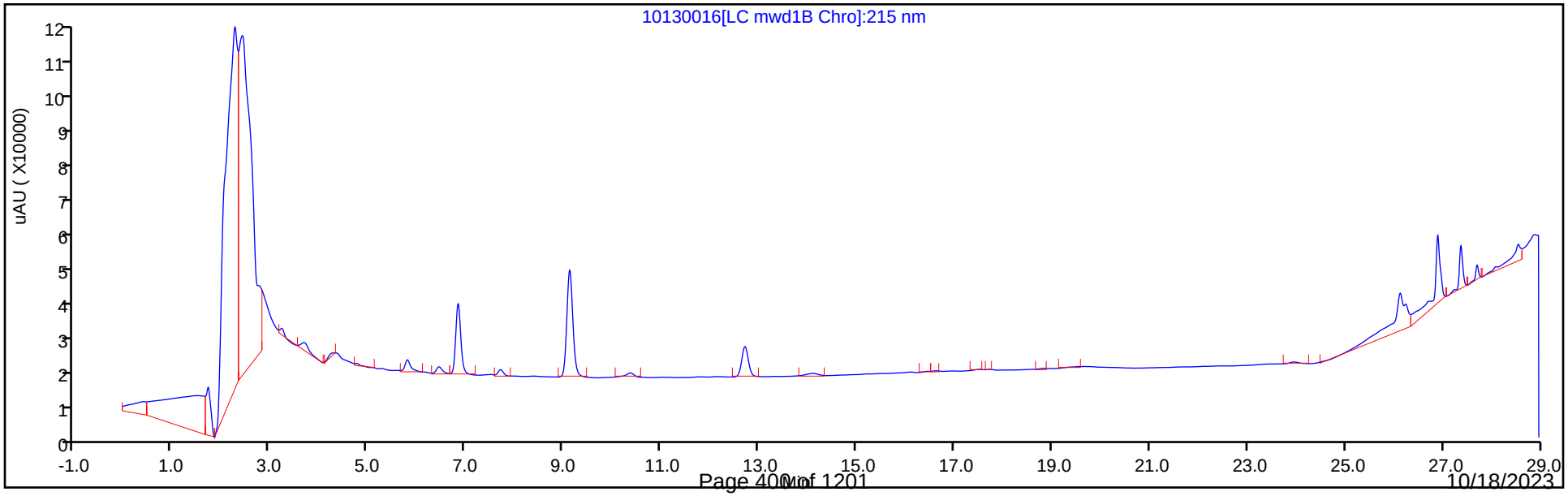
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130016.D

Injection Date:	13-Oct-2023 20:48:34	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4	Worklist Smp#:	16
Client ID:	WBGmw-006-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130016.D				
Lims ID:	280-182443-A-4-A				
Client ID:	WBGmw-006-230901-GW				
Sample Type:	Client				
Inject. Date:	13-Oct-2023 20:48:34	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-4-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	14-Oct-2023 14:31:09	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1649				

First Level Reviewer: LV5D Date: 14-Oct-2023 14:19:01

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1608	80.39

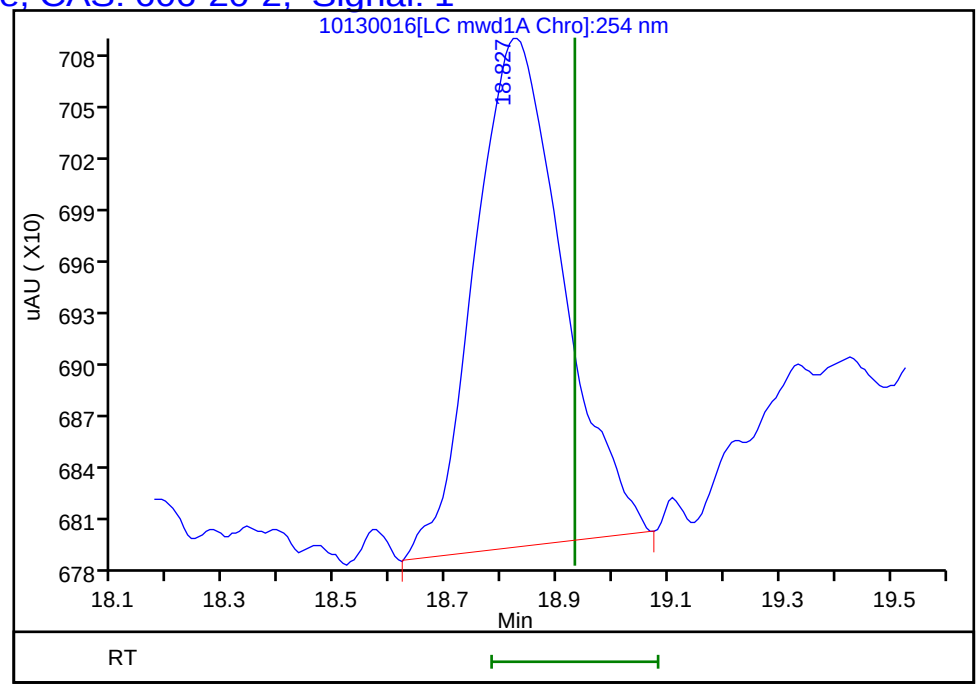
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130016.D				
Injection Date:	13-Oct-2023 20:48:34	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4		
Client ID:	WBGmw-006-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

21 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 18.83
Response: 3163
Amount: 0.011532



Reviewer: LV5D, 14-Oct-2023 14:19:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

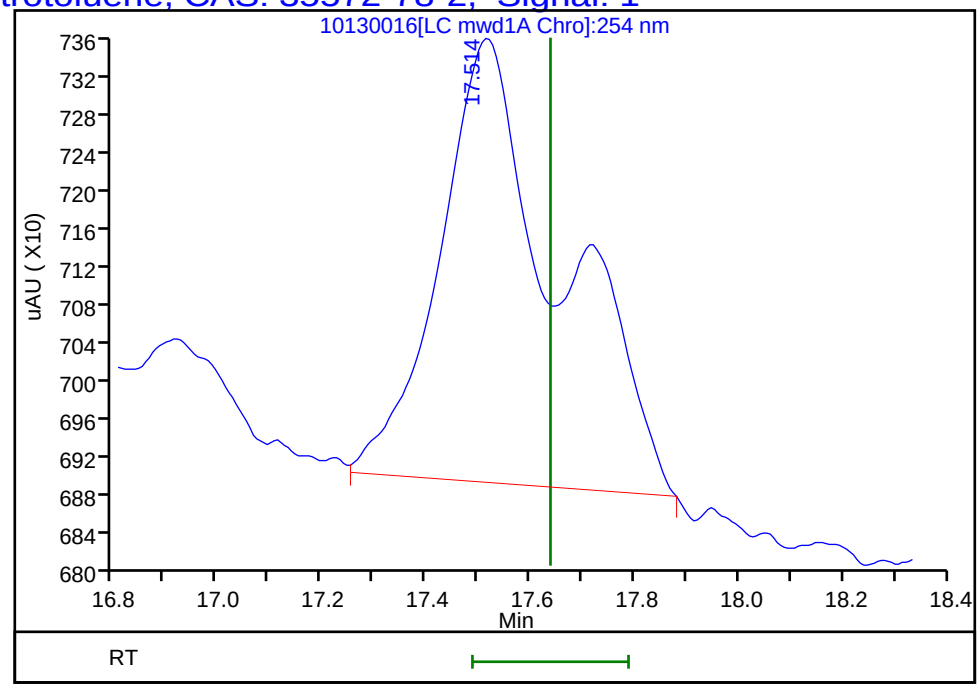
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130016.D				
Injection Date:	13-Oct-2023 20:48:34	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4		
Client ID:	WBGmw-006-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 17.51
Response: 7617
Amount: 0.019440



Reviewer: LV5D, 14-Oct-2023 14:19:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

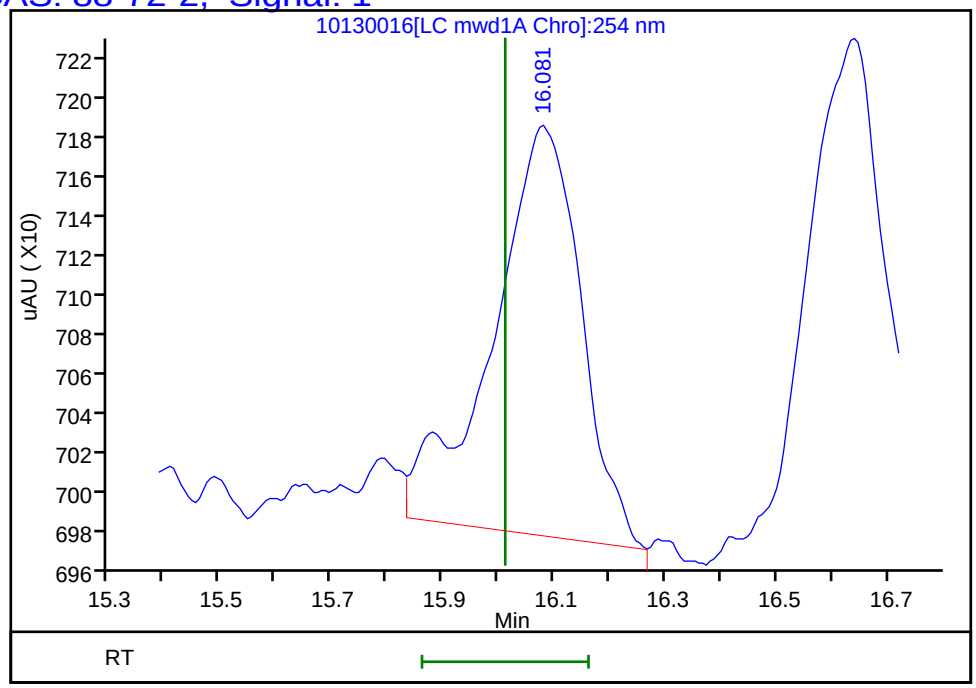
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130016.D				
Injection Date:	13-Oct-2023 20:48:34	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4		
Client ID:	WBGmw-006-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 16.08
Response: 2237
Amount: 0.009415



Reviewer: LV5D, 14-Oct-2023 14:19:01
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130016.D

Injection Date: 13-Oct-2023 20:48:34 Instrument ID: CHHPLC_X5

Lims ID: 280-182443-A-4-A Lab Sample ID: 280-182443-4

Client ID: WBGmw-006-230901-GW

Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16

Injection Vol: 100.0 ul Dil. Factor: 1.0000

Method: 8330_X5_Luna Limit Group: GCSV - 8330

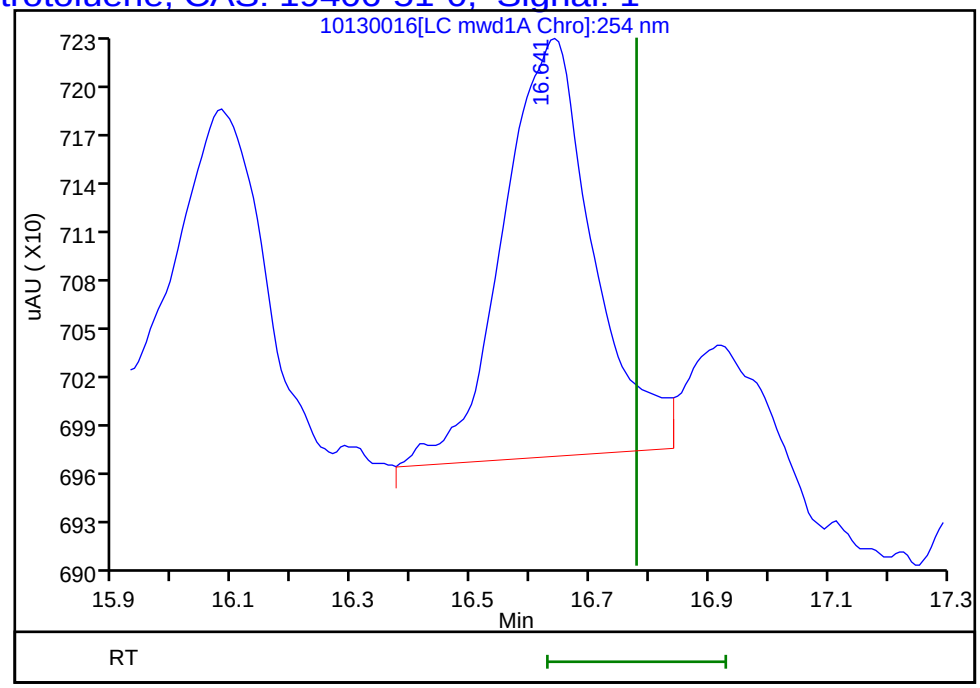
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 16.64

Response: 2692

Amount: 0.009896



Reviewer: LV5D, 14-Oct-2023 14:19:01

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

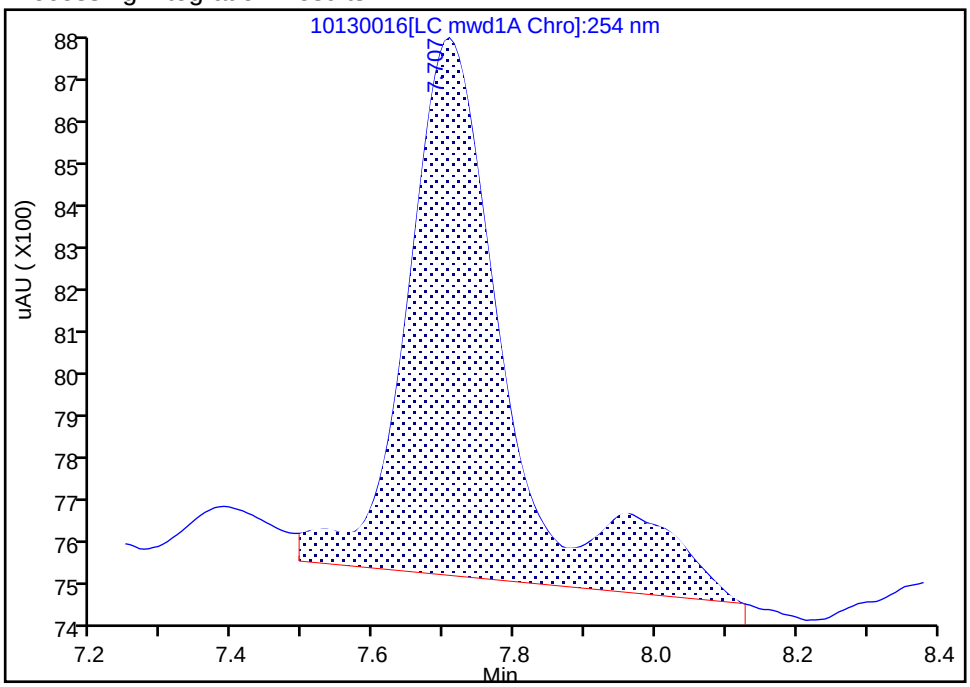
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130016.D				
Injection Date:	13-Oct-2023 20:48:34	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4		
Client ID:	WBGmw-006-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

6 MNX, CAS: 5755-27-1

Signal: 1

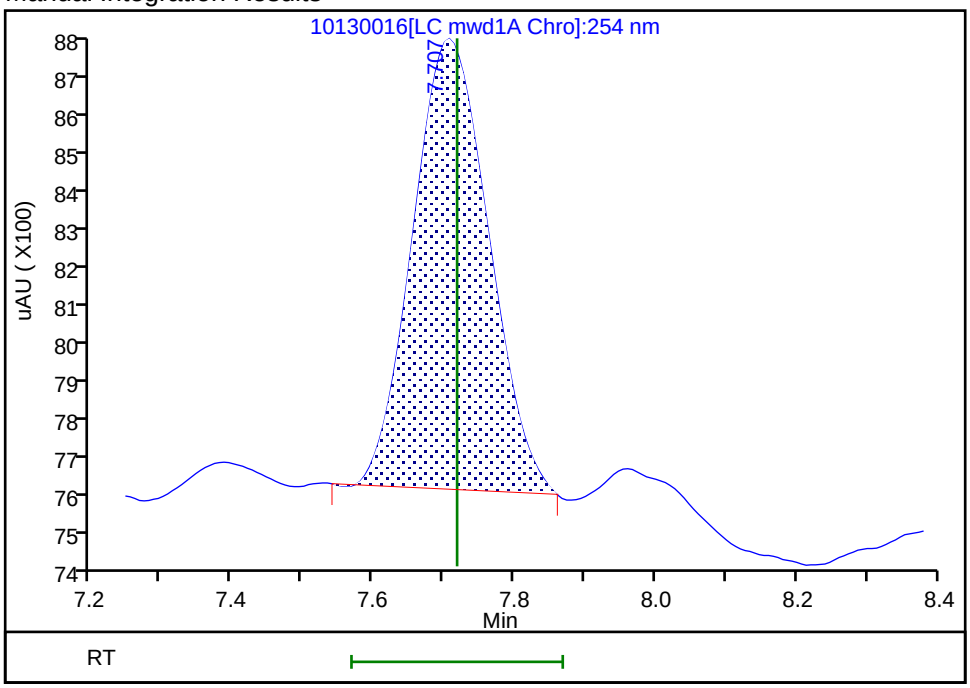
Processing Integration Results

RT: 7.71
Area: 11844
Amount: 0.044684
Amount Units: ug/ml



Manual Integration Results

RT: 7.71
Area: 8290
Amount: 0.031276
Amount Units: ug/ml



Reviewer: LV5D, 14-Oct-2023 14:18:54 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

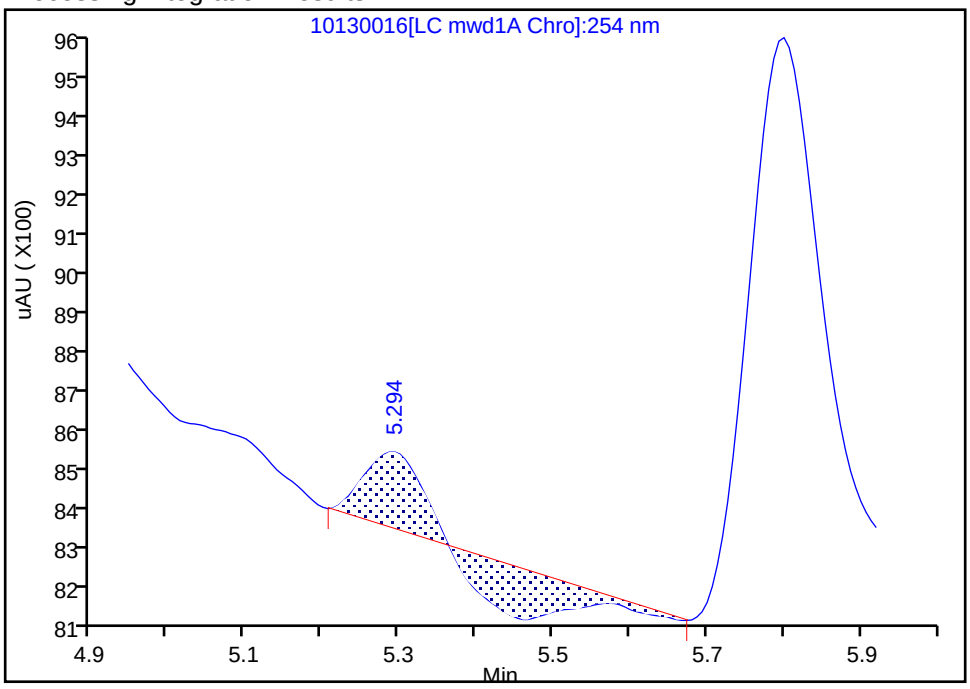
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130016.D				
Injection Date:	13-Oct-2023 20:48:34	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-4-A	Lab Sample ID:	280-182443-4		
Client ID:	WBGmw-006-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

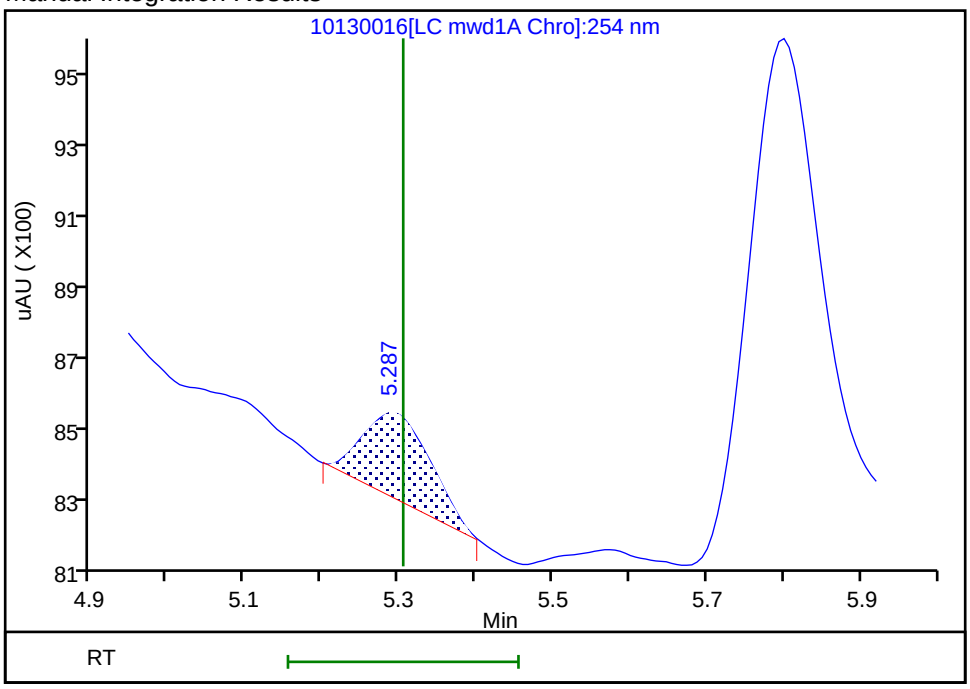
Processing Integration Results

RT: 5.29
Area: 1409
Amount: 0.003586
Amount Units: ug/ml



Manual Integration Results

RT: 5.29
Area: 1339
Amount: 0.003408
Amount Units: ug/ml



Reviewer: LV5D, 14-Oct-2023 14:19:00 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-016-230901-GW | Lab Sample ID: 280-182443-5

Matrix: Water | Lab File ID: 10120020.D

Analysis Method: 8330B | Date Collected: 10/04/2023 11:25

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 489.8(mL) | Date Analyzed: 10/12/2023 17:32

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.086
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046
6629-29-4	2,4-diamino-6-nitrotoluene	0.92	U	1.0	0.92	0.44
121-14-2	2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.92	U	1.0	0.92	0.23
606-20-2	2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.087
618-87-1	3,5-Dinitroaniline	0.31	U	0.41	0.31	0.13
99-08-1	3-Nitrotoluene	0.36	U	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
80251-29-2	DNX	0.26	U	0.51	0.26	0.099
2691-41-0	HMX	0.20	U	0.21	0.20	0.089
5755-27-1	MNX	0.30	U	0.51	0.30	0.095
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.093
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.94
78-11-5	PETN	1.0	U	1.1	1.0	0.46
121-82-4	RDX	0.20	U	0.21	0.20	0.053
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032
13980-04-6	TNX	0.26	U M	0.51	0.26	0.081

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120020.D
Lims ID: 280-182443-B-5-A
Client ID: WBGmw-016-230901-GW
Sample Type: Client
Inject. Date: 12-Oct-2023 17:32:45 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-B-5-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 19:23:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.435			ND	
3 TNX	1		6.443			ND	U
4 HMX	1		6.570			ND	
5 2,4-diamino-6-nitrotoluene	1		6.629			ND	
6 DNX	1		6.770			ND	
7 MNX	1		7.190			ND	
8 RDX	1		7.570			ND	
$ 10 1,2-Dinitrobenzene	1	8.522	8.510	0.012	25219	0.2035	M
11 1,3,5-Trinitrobenzene	1		8.637			ND	
12 1,3-Dinitrobenzene	1		9.243			ND	
13 Nitrobenzene	1		9.610			ND	
14 3,5-Dinitroaniline	1		9.823			ND	
15 Tetryl	1		9.956			ND	
16 Nitroglycerin	2		10.403			ND	
17 2,4,6-Trinitrotoluene	1		10.836			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20 2,6-Dinitrotoluene	1		11.416			ND	
21 2,4-Dinitrotoluene	1		11.583			ND	
22 o-Nitrotoluene	1		12.383			ND	
23 p-Nitrotoluene	1		12.790			ND	
24 m-Nitrotoluene	1		13.350			ND	
25 PETN	2		14.463			ND	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
U - Marked Undetected

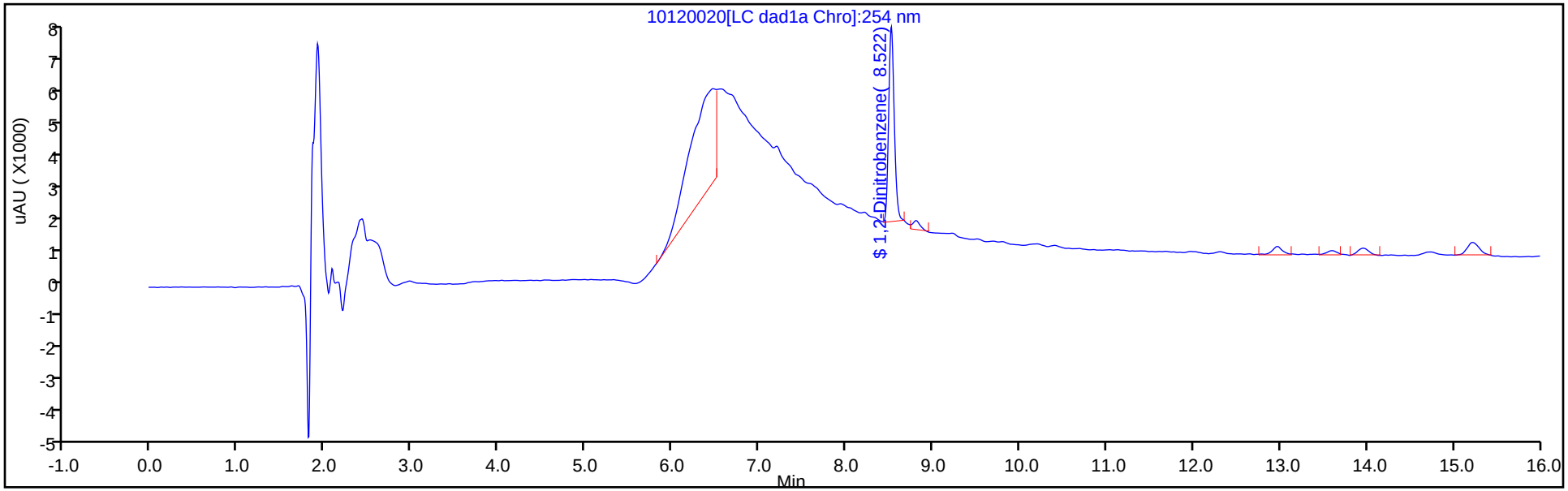
Report Date: 13-Oct-2023 09:16:41 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

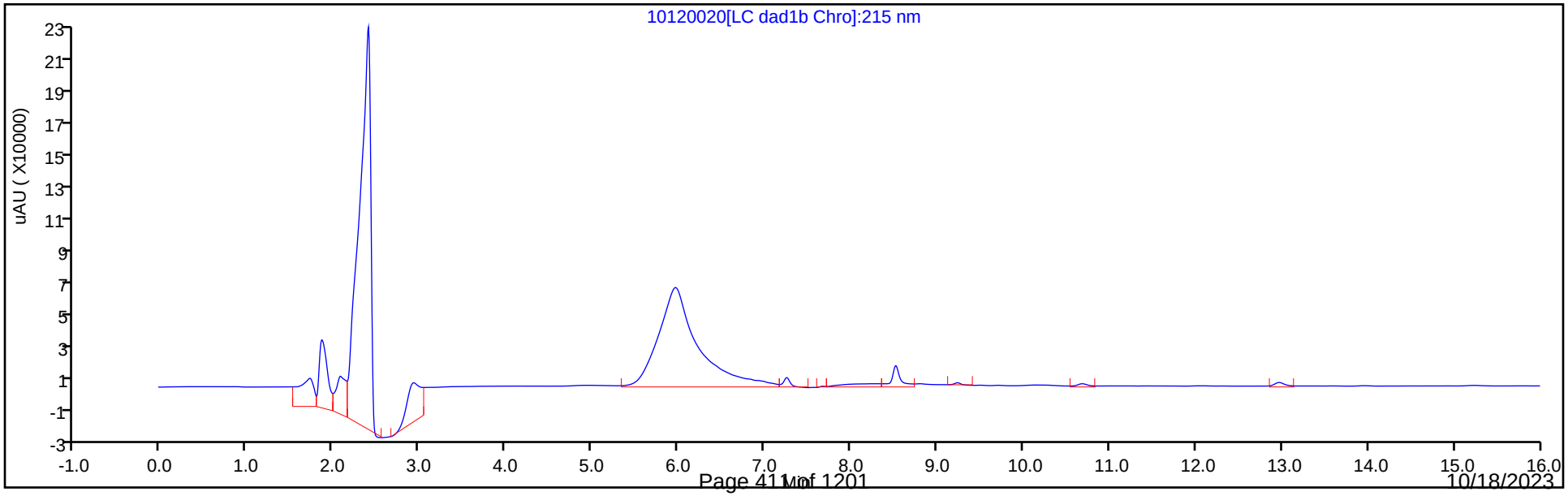
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120020.d

Injection Date:	12-Oct-2023 17:32:45	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-B-5-A	Lab Sample ID:	280-182443-5	Worklist Smp#:	20
Client ID:	WBGmw-016-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120020.D				
Lims ID:	280-182443-B-5-A				
Client ID:	WBGmw-016-230901-GW				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 17:32:45	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-B-5-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 09:16:33	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 12-Oct-2023 19:23:49

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2035	101.76

Manual Integration/User Assign Peak Report

Eurofins Denver

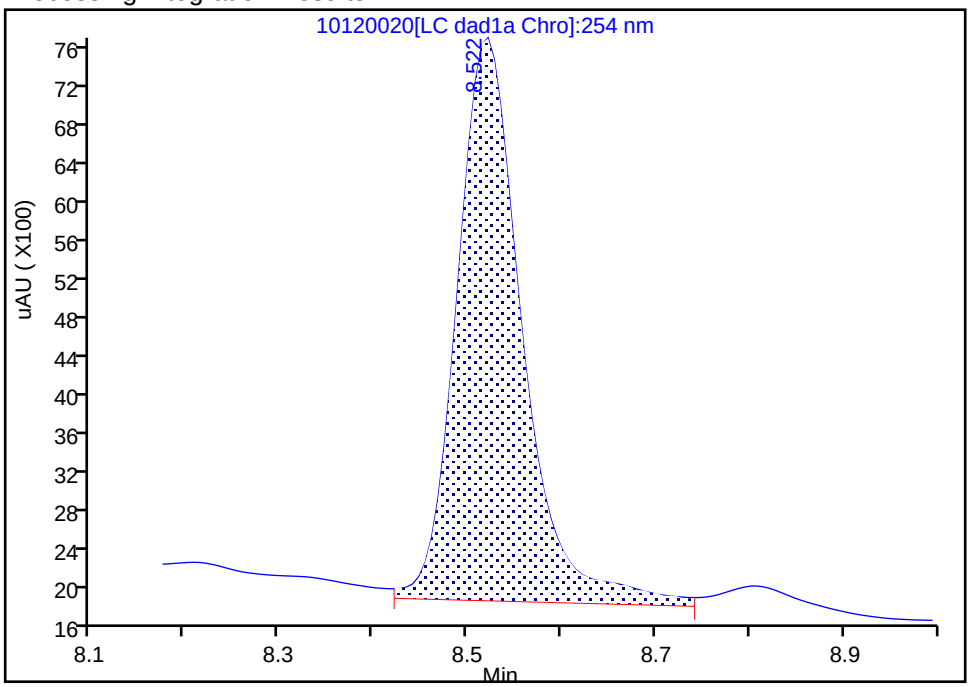
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120020.d				
Injection Date:	12-Oct-2023 17:32:45	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-B-5-A	Lab Sample ID:	280-182443-5		
Client ID:	WBGmw-016-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

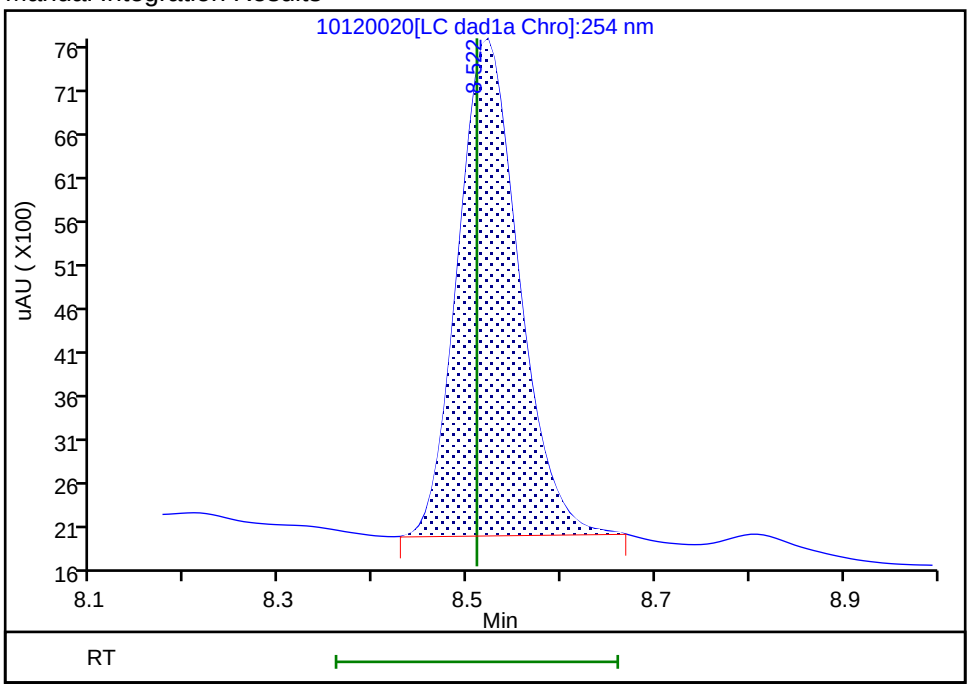
Processing Integration Results

RT: 8.52
Area: 27919
Amount: 0.225315
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 25219
Amount: 0.203525
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:23:48 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

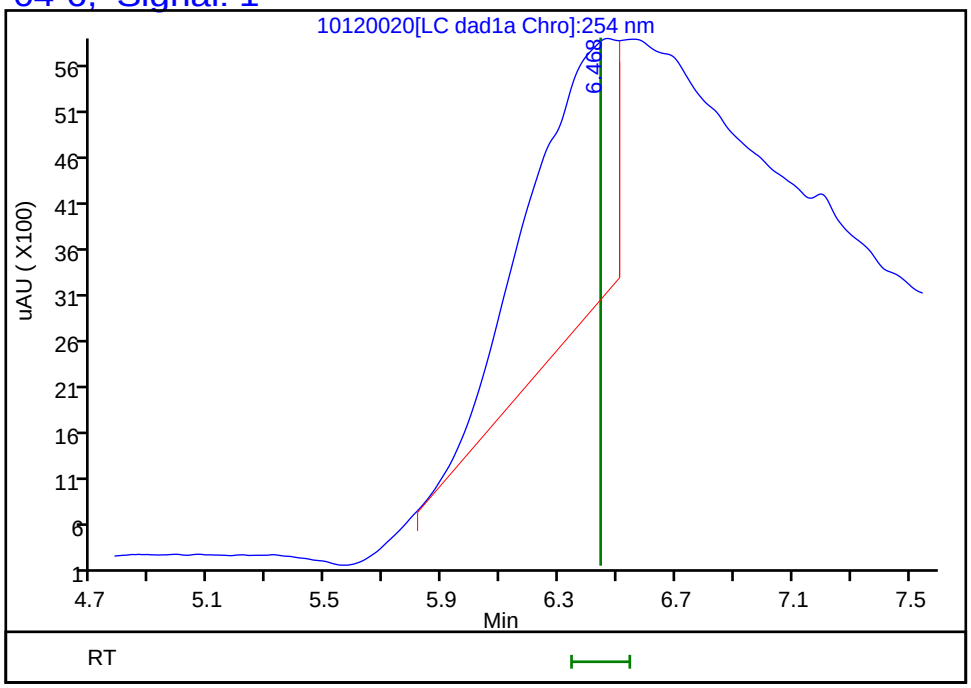
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120020.d
Injection Date: 12-Oct-2023 17:32:45 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-B-5-A Lab Sample ID: 280-182443-5
Client ID: WBGmw-016-230901-GW
Operator ID: JZ/JG ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

3 TNX, CAS: 13980-04-6, Signal: 1

RT: 6.47
Response: 61590
Amount: 0.306783



Reviewer: LV5D, 12-Oct-2023 19:23:49
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-021-230901-GW | Lab Sample ID: 280-182443-6

Matrix: Water | Lab File ID: 10120023.D

Analysis Method: 8330B | Date Collected: 10/04/2023 12:40

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 481(mL) | Date Analyzed: 10/12/2023 18:41

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047
6629-29-4	2,4-diamino-6-nitrotoluene	0.94	U	1.0	0.94	0.45
121-14-2	2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.94	U	1.0	0.94	0.23
606-20-2	2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.089
618-87-1	3,5-Dinitroaniline	0.31	U	0.42	0.31	0.14
99-08-1	3-Nitrotoluene	0.36	U	0.42	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.16	0.12	0.060
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.10
80251-29-2	DNX	0.26	U	0.52	0.26	0.10
2691-41-0	HMX	0.21	U M	0.22	0.21	0.091
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.095
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.96
78-11-5	PETN	1.0	U	1.1	1.0	0.46
121-82-4	RDX	0.21	U	0.22	0.21	0.054
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033
13980-04-6	TNX	0.26	U	0.52	0.26	0.082

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120023.D
Lims ID: 280-182443-A-6-A
Client ID: WBGmw-021-230901-GW
Sample Type: Client
Inject. Date: 12-Oct-2023 18:41:39 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-6-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:42 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 19:24:21

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2	2,6-diamino-4-nitrotoluene	1		6.435			ND	
3	TNX	1		6.443			ND	
4	HMX	1	6.574	6.570	0.004	253	0.002684	7M
5	2,4-diamino-6-nitrotoluene	1		6.629			ND	
6	DNX	1		6.770			ND	
7	MNX	1	7.208	7.190	0.018	1279	0.009222	M
8	RDX	1		7.570			ND	
$ 10	1,2-Dinitrobenzene	1	8.521	8.510	0.011	23168	0.1870	M
11	1,3,5-Trinitrobenzene	1		8.637			ND	
12	1,3-Dinitrobenzene	1		9.243			ND	
13	Nitrobenzene	1		9.610			ND	
14	3,5-Dinitroaniline	1		9.823			ND	
15	Tetryl	1		9.956			ND	
16	Nitroglycerin	2		10.403			ND	
17	2,4,6-Trinitrotoluene	1		10.836			ND	
18	4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19	2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20	2,6-Dinitrotoluene	1		11.416			ND	
21	2,4-Dinitrotoluene	1		11.583			ND	
22	o-Nitrotoluene	1		12.383			ND	
23	p-Nitrotoluene	1		12.790			ND	
24	m-Nitrotoluene	1		13.350			ND	
25	PETN	2		14.463			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated

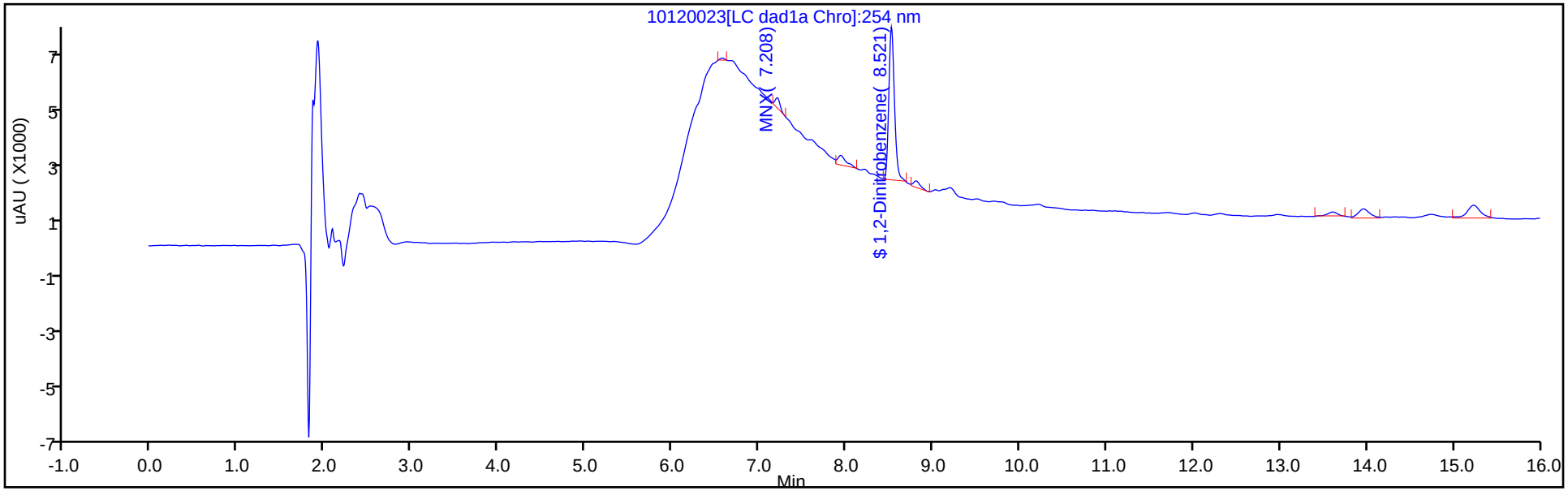
Report Date: 13-Oct-2023 09:16:43 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

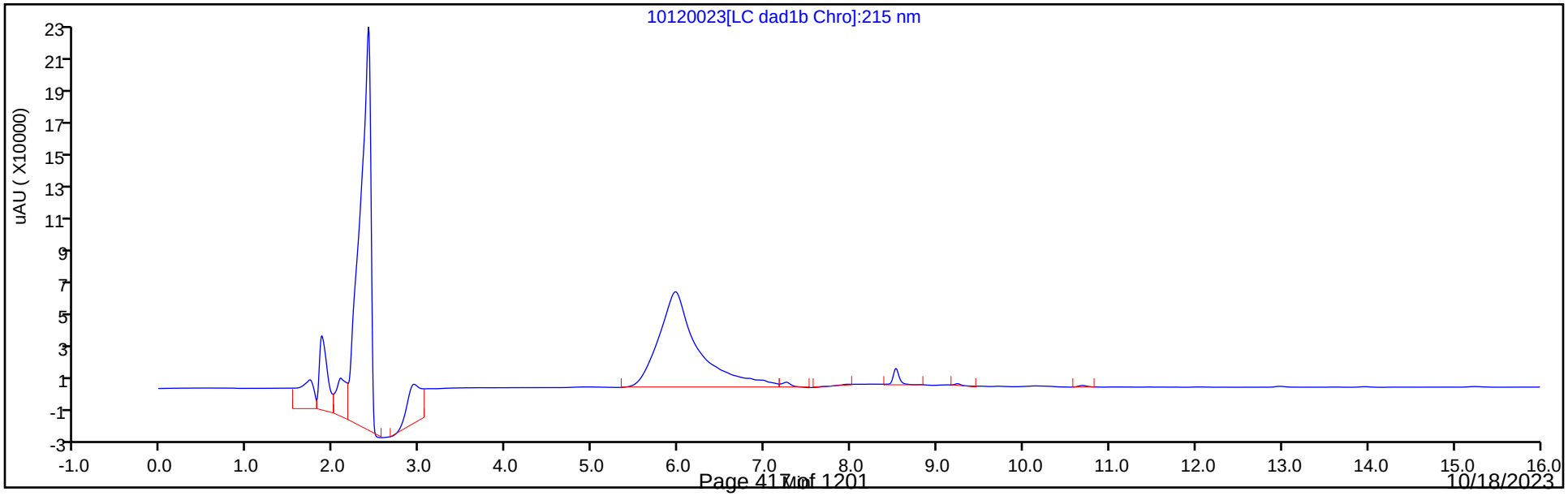
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120023.d

Injection Date:	12-Oct-2023 18:41:39	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-A-6-A	Lab Sample ID:	280-182443-6	Worklist Smp#:	23
Client ID:	WBGmw-021-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120023.D				
Lims ID:	280-182443-A-6-A				
Client ID:	WBGmw-021-230901-GW				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 18:41:39	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-6-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 09:16:42	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 12-Oct-2023 19:24:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1870	93.49

Manual Integration/User Assign Peak Report

Eurofins Denver

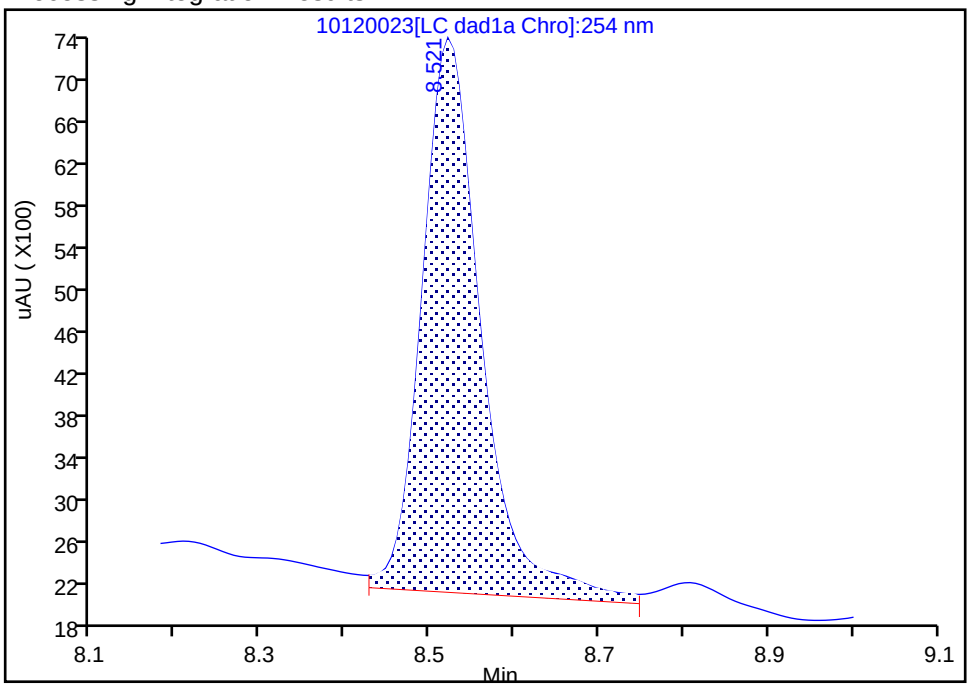
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120023.d				
Injection Date:	12-Oct-2023 18:41:39	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-6-A	Lab Sample ID:	280-182443-6		
Client ID:	WBGmw-021-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

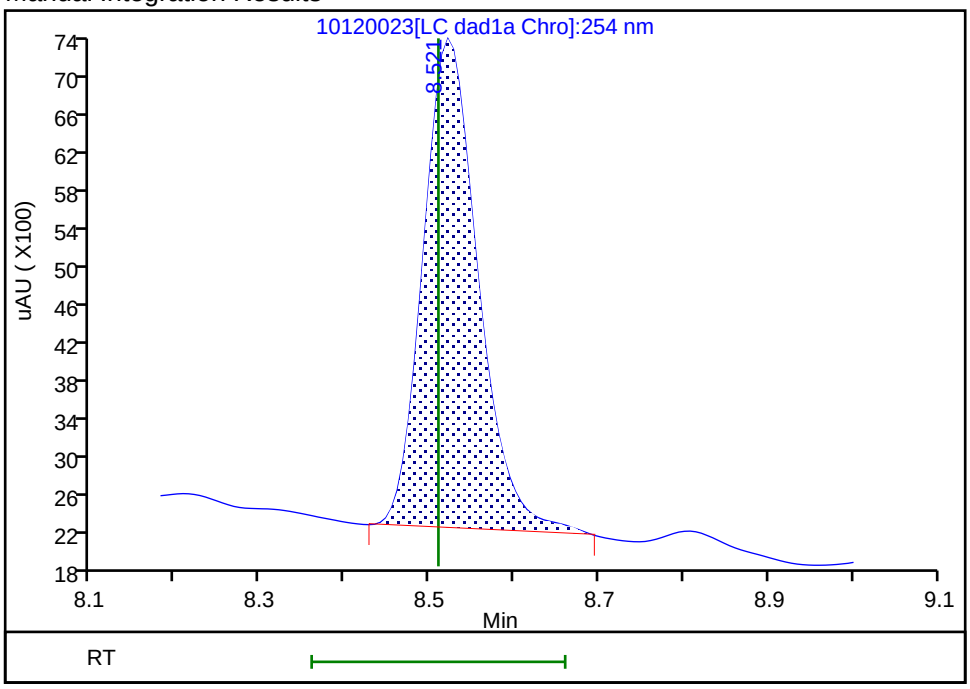
Processing Integration Results

RT: 8.52
Area: 25443
Amount: 0.205333
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 23168
Amount: 0.186973
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:24:15 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

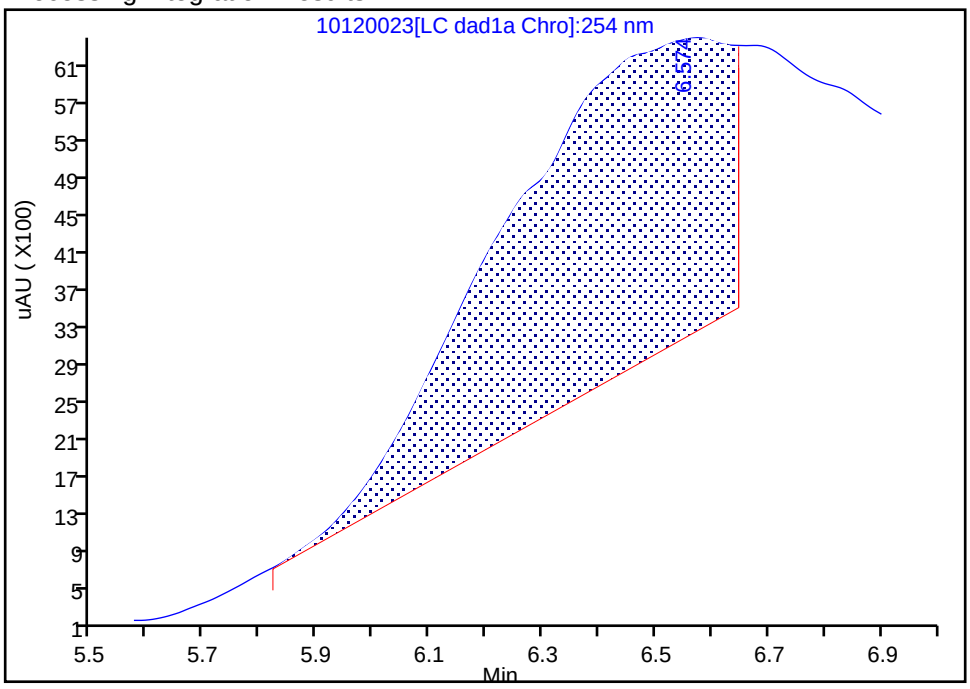
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120023.d				
Injection Date:	12-Oct-2023 18:41:39	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-6-A	Lab Sample ID:	280-182443-6		
Client ID:	WBGmw-021-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

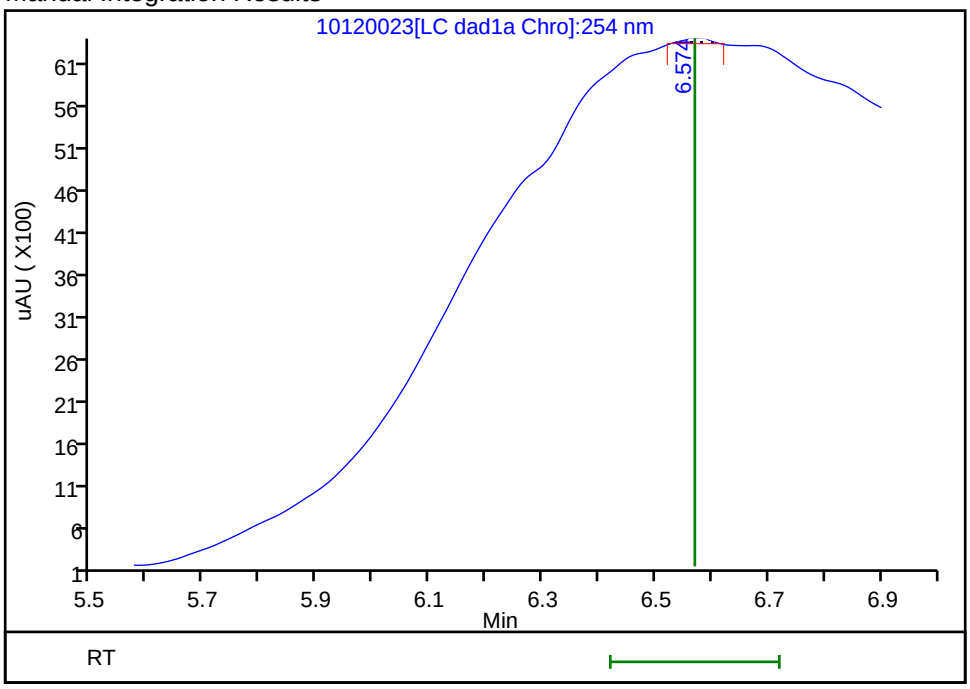
Processing Integration Results

RT: 6.57
Area: 94030
Amount: 0.997609
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 253
Amount: 0.002684
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:24:18 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

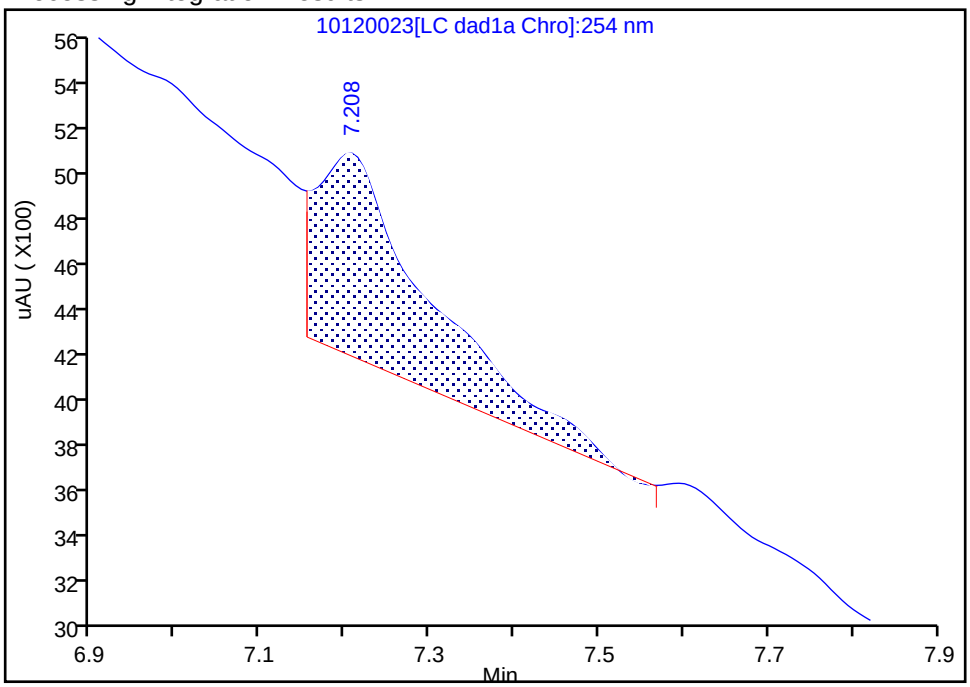
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120023.d				
Injection Date:	12-Oct-2023 18:41:39	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-6-A	Lab Sample ID:	280-182443-6		
Client ID:	WBGmw-021-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

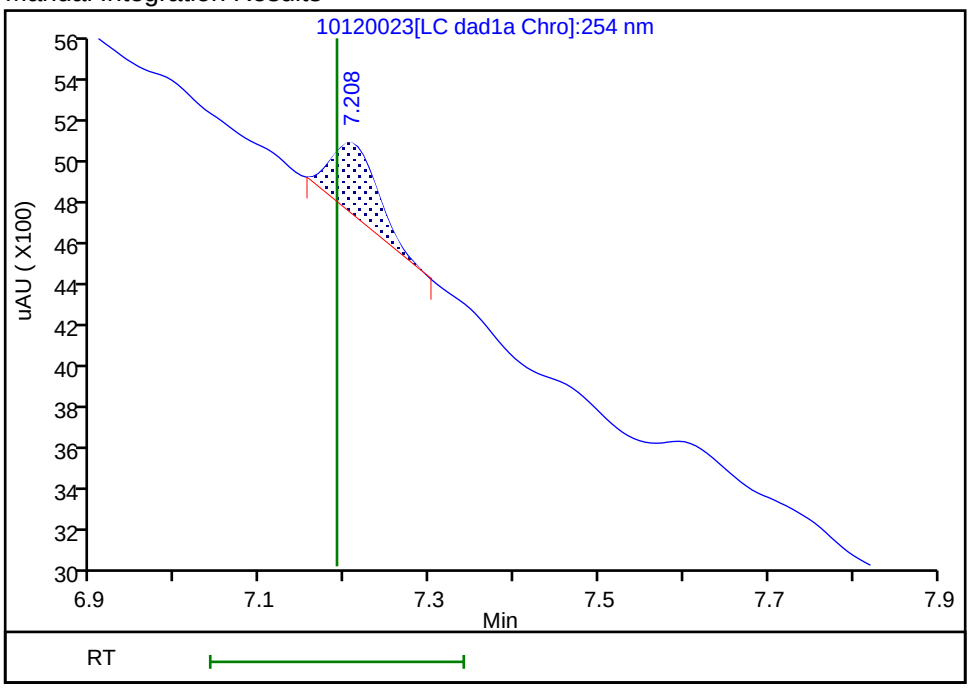
Processing Integration Results

RT: 7.21
Area: 8114
Amount: 0.058505
Amount Units: ug/mL



Manual Integration Results

RT: 7.21
Area: 1279
Amount: 0.009222
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:24:12 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-021-230901-GW | Lab Sample ID: 280-182443-6

Matrix: Water | Lab File ID: 10130017.D

Analysis Method: 8330B | Date Collected: 10/04/2023 12:40

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 481(mL) | Date Analyzed: 10/13/2023 21:23

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629680 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
5755-27-1	MNX	0.30	U	0.52	0.30	0.096

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	84		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130017.D
Lims ID: 280-182443-A-6-A
Client ID: WBGmw-021-230901-GW
Sample Type: Client
Inject. Date: 13-Oct-2023 21:23:31 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-6-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 14:31:09 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 14-Oct-2023 14:19:15

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1		4.218			ND	
	2 2,4-diamino-6-nitrotoluene	1		4.852			ND	
	3 TNX	1		5.305			ND	
	4 DNX	1		6.185			ND	
	5 HMX	1		6.852			ND	
	6 MNX	1		7.718			ND	
	8 RDX	1		9.152			ND	U
	9 Nitrobenzene	1		11.752			ND	7
$	10 1,2-Dinitrobenzene	1	12.734	12.752	-0.018	44630	0.1673	
	11 3,5-Dinitroaniline	1		14.598			ND	
	12 1,3-Dinitrobenzene	1		14.858			ND	
	13 Nitroglycerin	2		15.425			ND	
	14 o-Nitrotoluene	1		16.012			ND	U
	16 p-Nitrotoluene	1		16.245			ND	
	17 4-Amino-2,6-dinitrotoluene	1		16.778			ND	U
	18 m-Nitrotoluene	1		17.105			ND	
	19 2-Amino-4,6-dinitrotoluene	1		17.638			ND	U
	20 1,3,5-Trinitrobenzene	1		17.665			ND	
	21 2,6-Dinitrotoluene	1	18.847	18.932	-0.085	3076	0.0112	
	22 2,4-Dinitrotoluene	1		19.385			ND	
	23 Tetryl	1		22.765			ND	
	24 2,4,6-Trinitrotoluene	1		23.578			ND	
	25 PETN	2		24.878			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

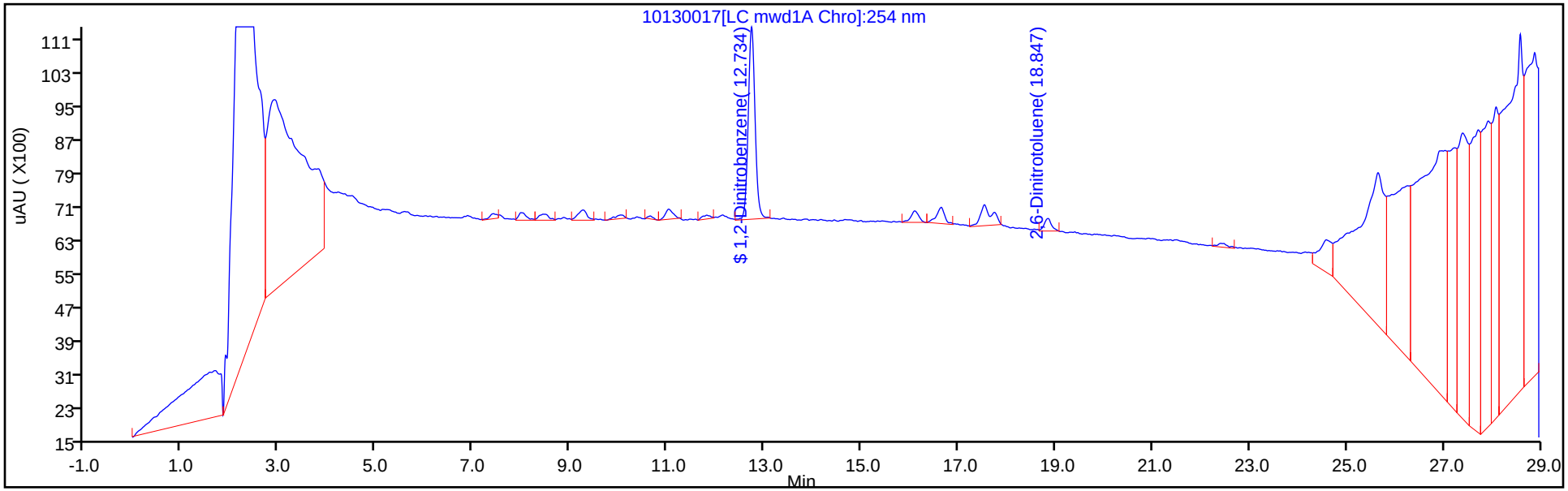
Report Date: 14-Oct-2023 14:31:10 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

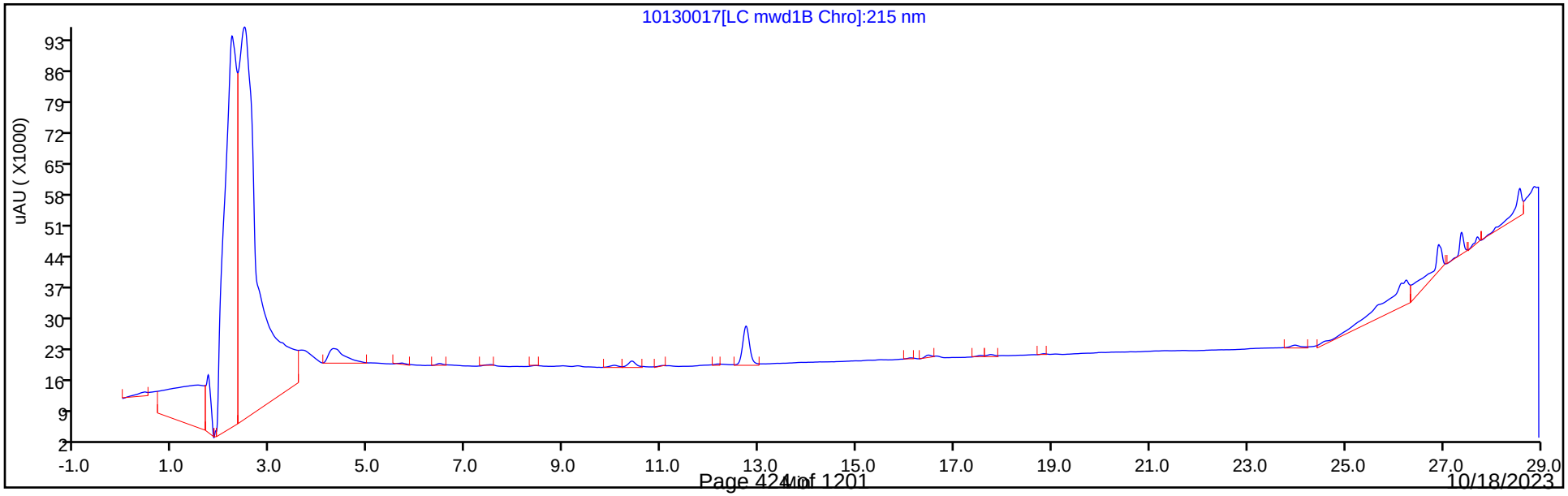
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130017.D

Injection Date:	13-Oct-2023 21:23:31	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	280-182443-A-6-A	Lab Sample ID:	280-182443-6	Worklist Smp#:	17
Client ID:	WBGmw-021-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130017.D				
Lims ID:	280-182443-A-6-A				
Client ID:	WBGmw-021-230901-GW				
Sample Type:	Client				
Inject. Date:	13-Oct-2023 21:23:31	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-6-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	14-Oct-2023 14:31:09	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1649				

First Level Reviewer: LV5D Date: 14-Oct-2023 14:19:15

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1673	83.66

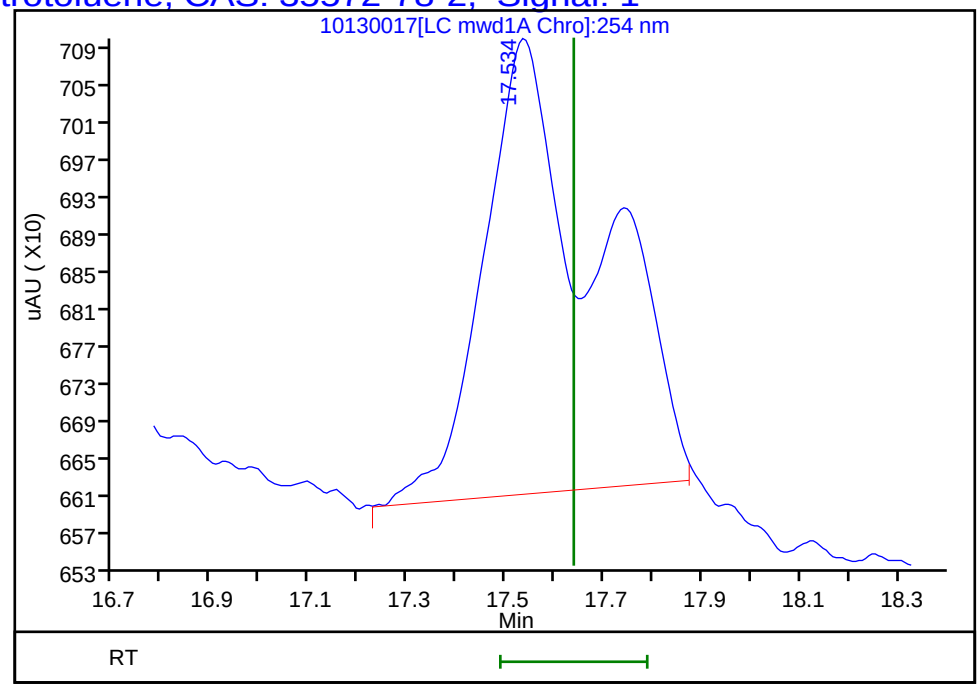
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130017.D				
Injection Date:	13-Oct-2023 21:23:31	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-6-A	Lab Sample ID:	280-182443-6		
Client ID:	WBGmw-021-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 17.53
Response: 7748
Amount: 0.019774



Reviewer: LV5D, 14-Oct-2023 14:19:15
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

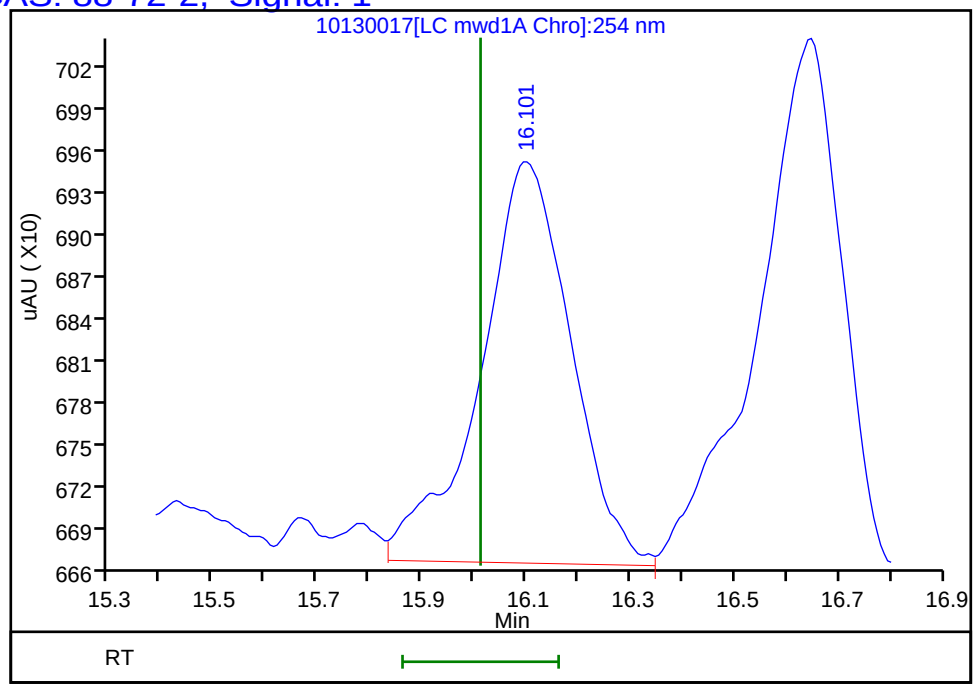
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130017.D				
Injection Date:	13-Oct-2023 21:23:31	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-6-A	Lab Sample ID:	280-182443-6		
Client ID:	WBGmw-021-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 16.10
Response: 3383
Amount: 0.014238



Reviewer: LV5D, 14-Oct-2023 14:19:15
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

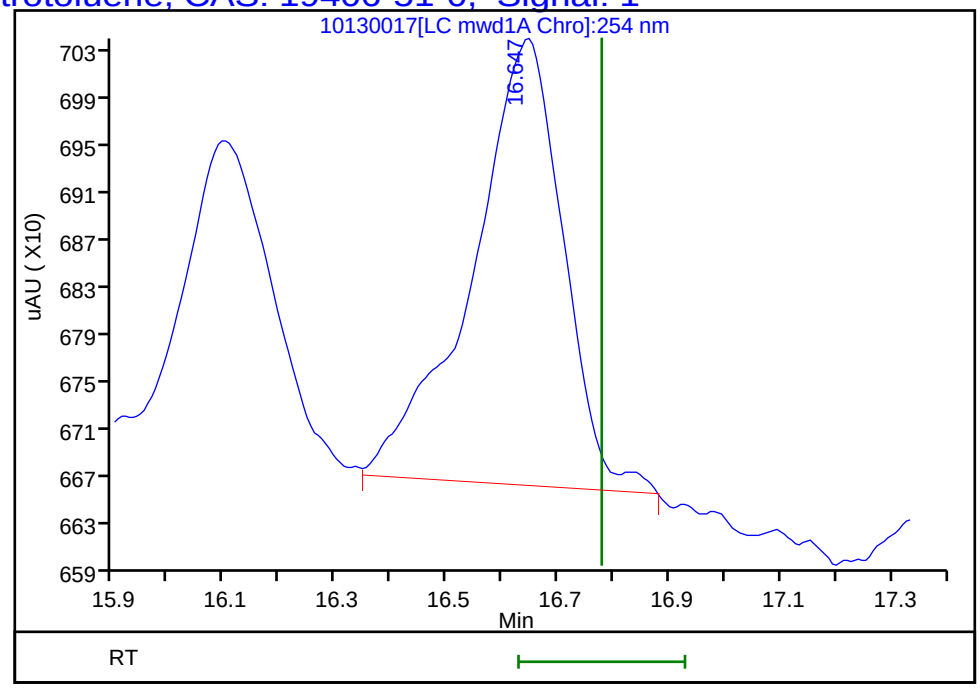
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130017.D				
Injection Date:	13-Oct-2023 21:23:31	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-6-A	Lab Sample ID:	280-182443-6		
Client ID:	WBGmw-021-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

17 4-Amino-2,6-dinitrotoluene, CAS: 19406-51-0, Signal: 1

RT: 16.65
Response: 4312
Amount: 0.015851



Reviewer: LV5D, 14-Oct-2023 14:19:15
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130017.D

Injection Date: 13-Oct-2023 21:23:31 Instrument ID: CHHPLC_X5

Lims ID: 280-182443-A-6-A Lab Sample ID: 280-182443-6

Client ID: WBGmw-021-230901-GW

Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17

Injection Vol: 100.0 ul Dil. Factor: 1.0000

Method: 8330_X5_Luna Limit Group: GCSV - 8330

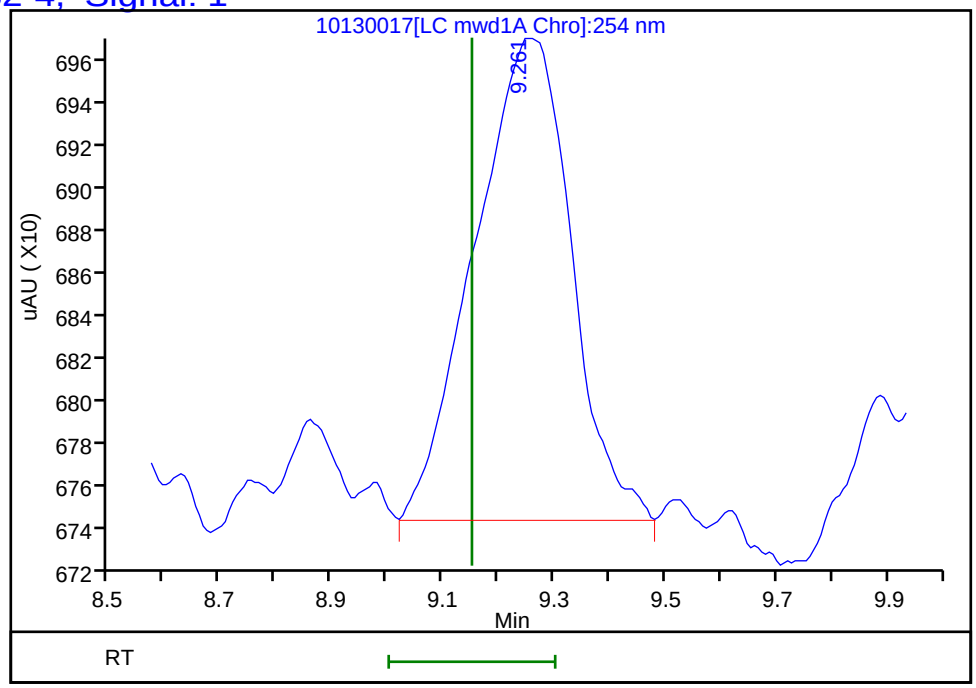
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

8 RDX, CAS: 121-82-4, Signal: 1

RT: 9.26

Response: 2673

Amount: 0.012123



Reviewer: LV5D, 14-Oct-2023 14:19:15

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-018-230901-GW | Lab Sample ID: 280-182443-7

Matrix: Water | Lab File ID: 10120024.D

Analysis Method: 8330B | Date Collected: 10/04/2023 14:30

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 492.5(mL) | Date Analyzed: 10/12/2023 19:04

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U	0.21	0.20	0.085
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046
6629-29-4	2,4-diamino-6-nitrotoluene	0.91	U	1.0	0.91	0.44
121-14-2	2,4-Dinitrotoluene	0.081	U	0.10	0.081	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.91	U	1.0	0.91	0.22
606-20-2	2,6-Dinitrotoluene	0.081	U	0.10	0.081	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.087
618-87-1	3,5-Dinitroaniline	0.30	U	0.41	0.30	0.13
99-08-1	3-Nitrotoluene	0.36	U	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
80251-29-2	DNX	0.25	U	0.51	0.25	0.099
2691-41-0	HMX	0.11	J M	0.21	0.20	0.089
5755-27-1	MNX	0.29	U	0.51	0.29	0.094
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.092
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.94
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	0.17	J M	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032
13980-04-6	TNX	0.25	U	0.51	0.25	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120024.D
Lims ID: 280-182443-A-7-A
Client ID: WBGmw-018-230901-GW
Sample Type: Client
Inject. Date: 12-Oct-2023 19:04:33 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-7-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:42 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 19:48:05

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.435			ND	M
3 TNX	1		6.443			ND	
4 HMX	1	6.531	6.570	-0.039	1033	0.0110	M
5 2,4-diamino-6-nitrotoluene	1		6.629			ND	
6 DNX	1		6.770			ND	
7 MNX	1		7.190			ND	
8 RDX	1	7.571	7.570	0.001	1904	0.0172	M
$ 10 1,2-Dinitrobenzene	1	8.518	8.510	0.008	23752	0.1917	M
11 1,3,5-Trinitrobenzene	1		8.637			ND	
12 1,3-Dinitrobenzene	1		9.243			ND	
13 Nitrobenzene	1		9.610			ND	
14 3,5-Dinitroaniline	1		9.823			ND	
15 Tetryl	1		9.956			ND	
16 Nitroglycerin	2		10.403			ND	
17 2,4,6-Trinitrotoluene	1		10.836			ND	
18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
20 2,6-Dinitrotoluene	1		11.416			ND	
21 2,4-Dinitrotoluene	1		11.583			ND	
22 o-Nitrotoluene	1		12.383			ND	
23 p-Nitrotoluene	1		12.790			ND	
24 m-Nitrotoluene	1		13.350			ND	
25 PETN	2		14.463			ND	

QC Flag Legend

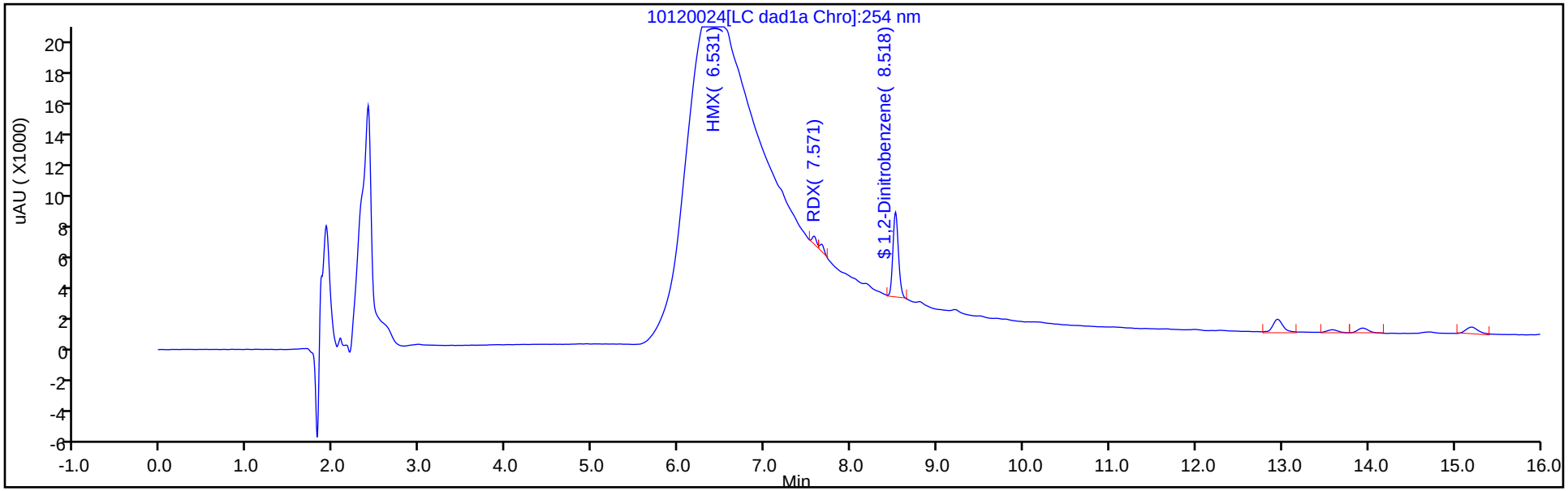
Processing Flags
Review Flags
M - Manually Integrated

Report Date: 13-Oct-2023 09:16:44 Chrom Revision: 2.3 22-Sep-2023 11:33:50

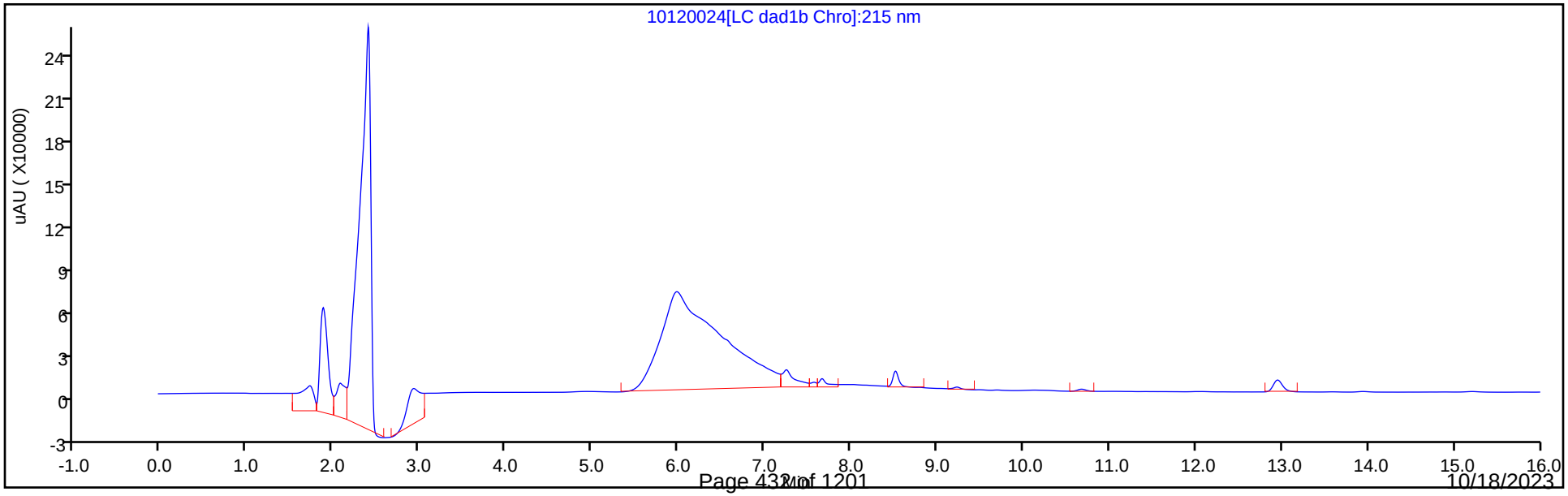
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120024.d				
Injection Date:	12-Oct-2023 19:04:33	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-A-7-A	Lab Sample ID:	280-182443-7	Worklist Smp#:	24
Client ID:	WBGmw-018-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120024.D				
Lims ID:	280-182443-A-7-A				
Client ID:	WBGmw-018-230901-GW				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 19:04:33	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-7-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 09:16:42	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 12-Oct-2023 19:48:05

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1917	95.84

Eurofins Denver

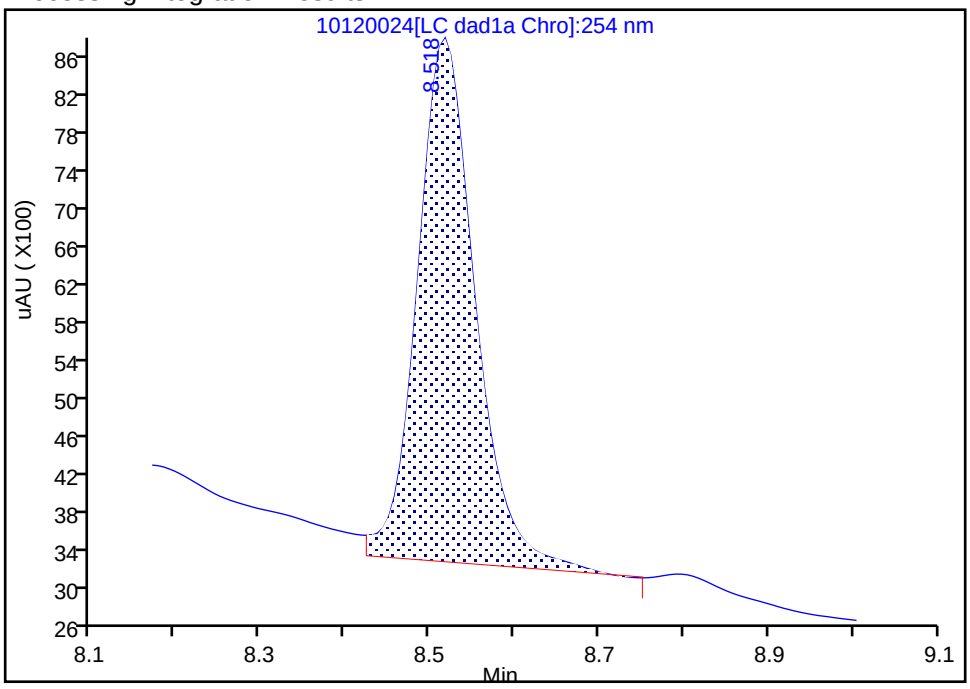
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120024.d				
Injection Date:	12-Oct-2023 19:04:33	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-7-A	Lab Sample ID:	280-182443-7		
Client ID:	WBGmw-018-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

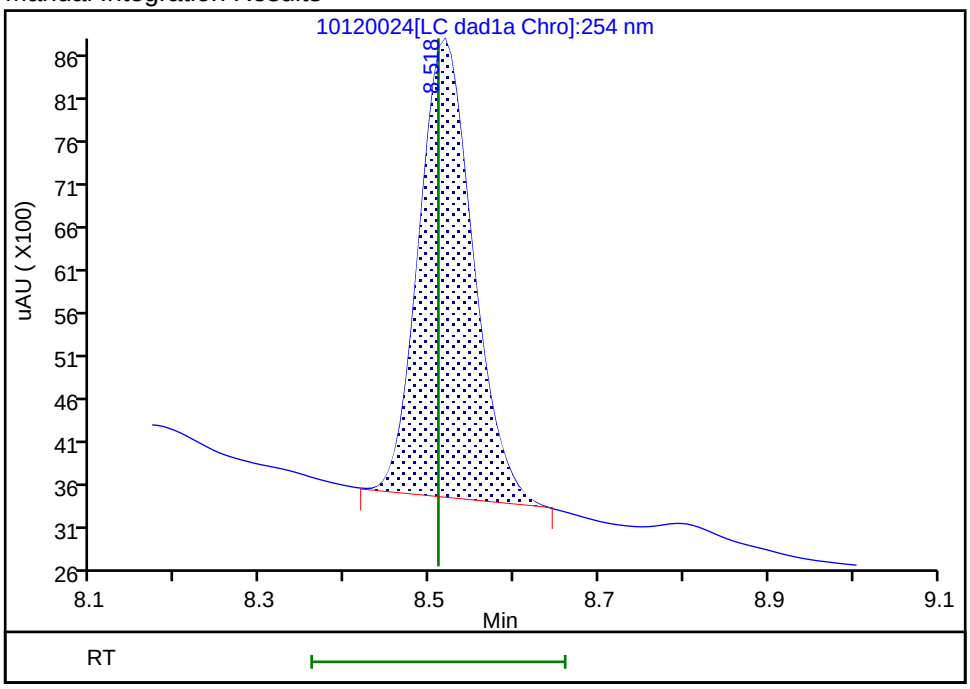
Processing Integration Results

RT: 8.52
Area: 26477
Amount: 0.213678
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 23752
Amount: 0.191686
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:47:42 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

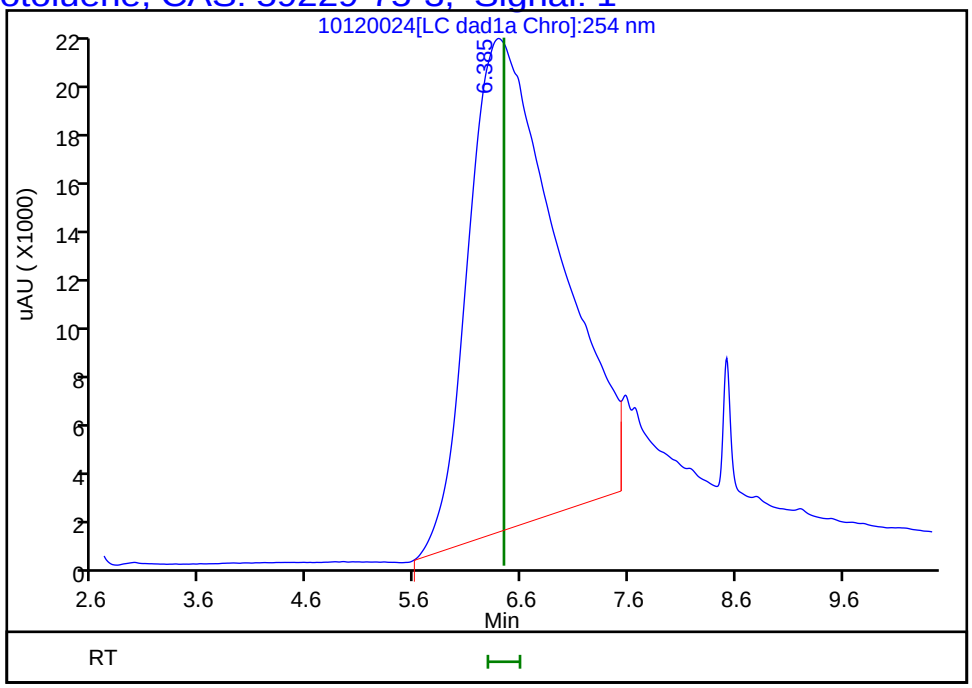
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120024.d
Injection Date: 12-Oct-2023 19:04:33 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-7-A Lab Sample ID: 280-182443-7
Client ID: WBGmw-018-230901-GW
Operator ID: JZ/JG ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3, Signal: 1

RT: 6.38
Response: 1172525
Amount: 5.198164



Reviewer: LV5D, 12-Oct-2023 19:48:05
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

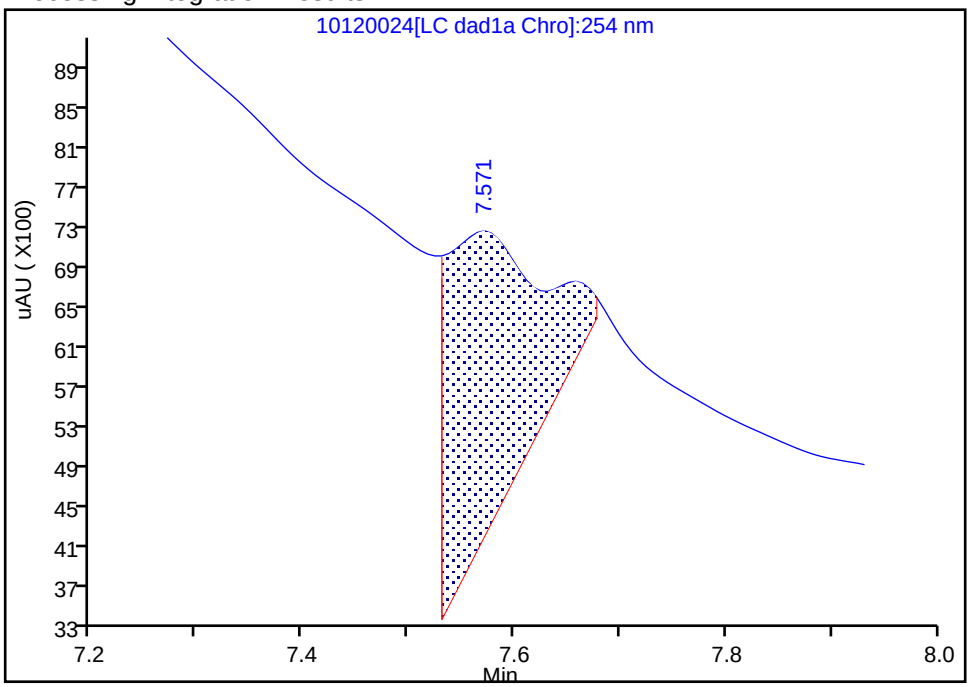
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120024.d				
Injection Date:	12-Oct-2023 19:04:33	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-7-A	Lab Sample ID:	280-182443-7		
Client ID:	WBGmw-018-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

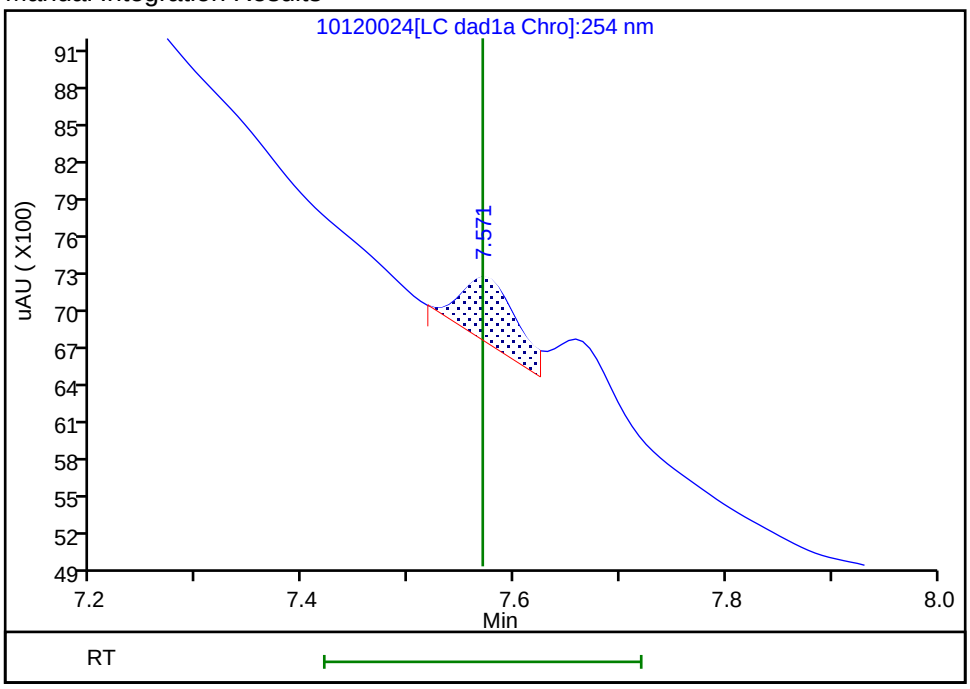
Processing Integration Results

RT: 7.57
Area: 18082
Amount: 0.163649
Amount Units: ug/mL



Manual Integration Results

RT: 7.57
Area: 1904
Amount: 0.017232
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:47:47 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-018-230901-GW | Lab Sample ID: 280-182443-7

Matrix: Water | Lab File ID: 10130018.D

Analysis Method: 8330B | Date Collected: 10/04/2023 14:30

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 492.5(mL) | Date Analyzed: 10/13/2023 21:58

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629680 | Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	87		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130018.D
Lims ID: 280-182443-A-7-A
Client ID: WBGmw-018-230901-GW
Sample Type: Client
Inject. Date: 13-Oct-2023 21:58:25 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-7-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 14:31:09 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 14-Oct-2023 14:19:32

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1	2,6-diamino-4-nitrotoluene	1		4.218			ND	
2	2,4-diamino-6-nitrotoluene	1		4.852			ND	
3	TNX	1		5.305			ND	
4	DNX	1		6.185			ND	
5	HMX	1	6.831	6.852	-0.021	2401	0.0126	M
6	MNX	1		7.718			ND	
8	RDX	1	9.124	9.152	-0.028	4516	0.0205	M
9	Nitrobenzene	1		11.752			ND	
$ 10	1,2-Dinitrobenzene	1	12.724	12.752	-0.028	46570	0.1746	
11	3,5-Dinitroaniline	1		14.598			ND	
12	1,3-Dinitrobenzene	1		14.858			ND	
13	Nitroglycerin	2		15.425			ND	
14	o-Nitrotoluene	1		16.012			ND	U
16	p-Nitrotoluene	1		16.245			ND	
17	4-Amino-2,6-dinitrotoluene	1		16.778			ND	
18	m-Nitrotoluene	1		17.105			ND	
19	2-Amino-4,6-dinitrotoluene	1		17.638			ND	U
20	1,3,5-Trinitrobenzene	1		17.665			ND	
21	2,6-Dinitrotoluene	1		18.932			ND	U
22	2,4-Dinitrotoluene	1		19.385			ND	
23	Tetryl	1		22.765			ND	
24	2,4,6-Trinitrotoluene	1		23.578			ND	
25	PETN	2		24.878			ND	

QC Flag Legend
Processing Flags

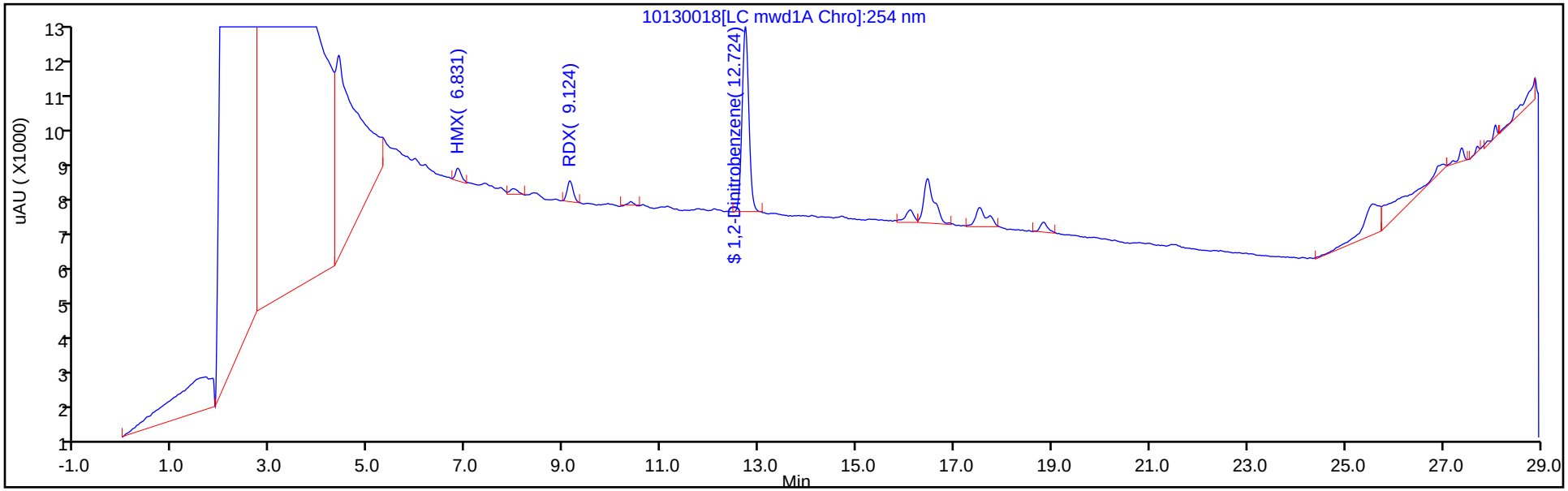
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 14-Oct-2023 14:31:11 Chrom Revision: 2.3 22-Sep-2023 11:33:50

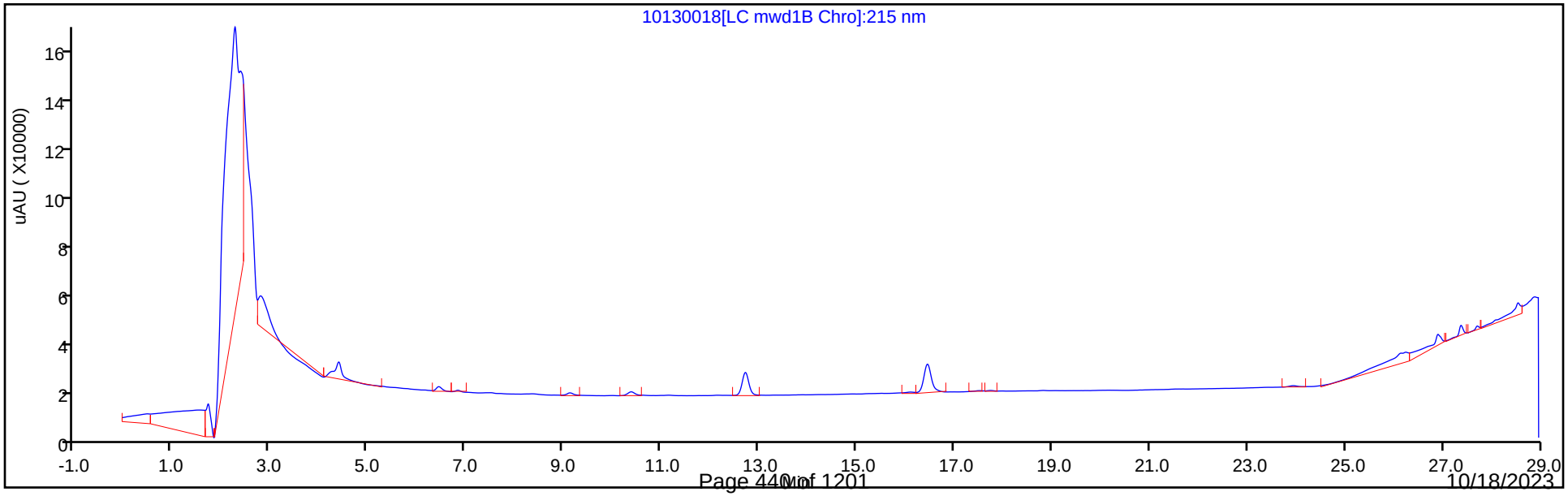
Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130018.D				
Injection Date:	13-Oct-2023 21:58:25	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	280-182443-A-7-A	Lab Sample ID:	280-182443-7	Worklist Smp#:	18
Client ID:	WBGmw-018-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130018.D				
Lims ID:	280-182443-A-7-A				
Client ID:	WBGmw-018-230901-GW				
Sample Type:	Client				
Inject. Date:	13-Oct-2023 21:58:25	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-7-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	14-Oct-2023 14:31:09	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1649				

First Level Reviewer: LV5D Date: 14-Oct-2023 14:19:32

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1746	87.29

User Disabled Compound Report

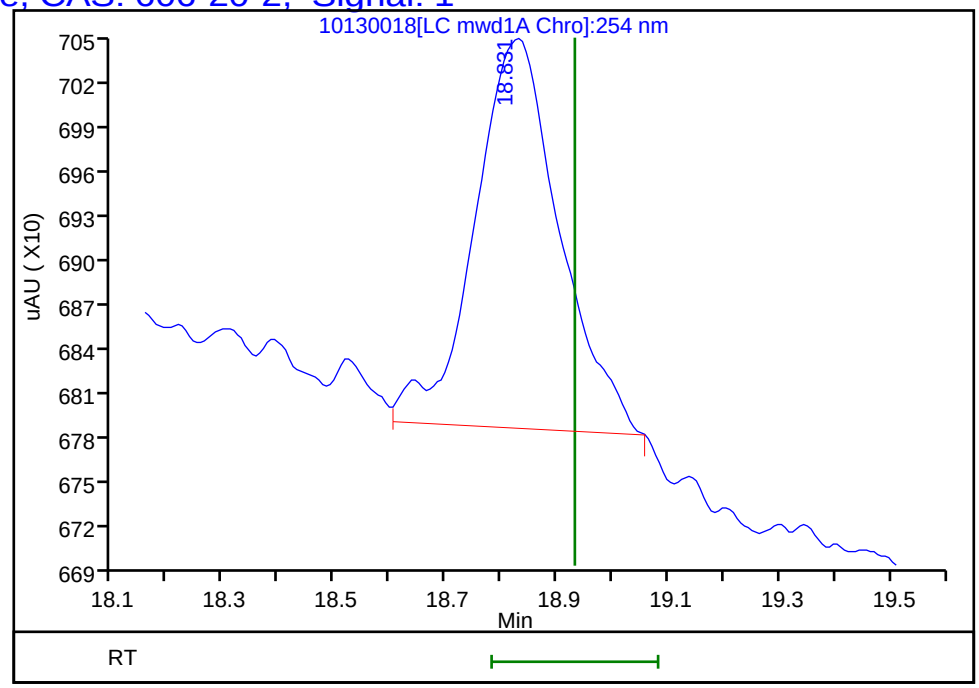
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130018.D

Injection Date:	13-Oct-2023 21:58:25	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-7-A	Lab Sample ID:	280-182443-7		
Client ID:	WBGmw-018-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

21 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 18.83
Response: 2746
Amount: 0.010012



Reviewer: LV5D, 14-Oct-2023 14:19:32
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

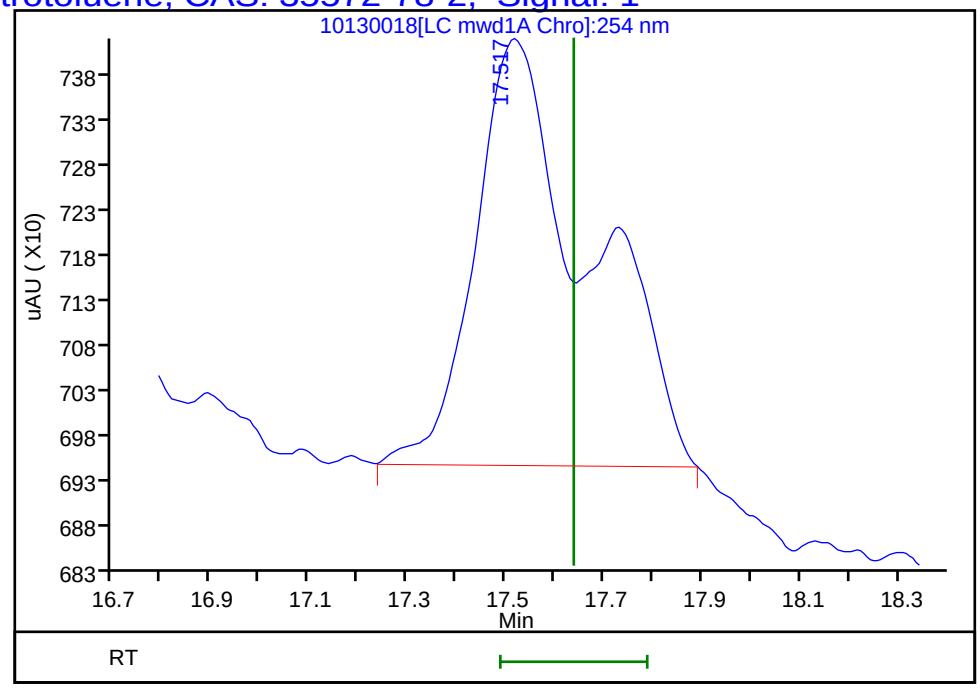
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130018.D
Injection Date: 13-Oct-2023 21:58:25 Instrument ID: CHHPLC_X5
Lims ID: 280-182443-A-7-A Lab Sample ID: 280-182443-7
Client ID: WBGmw-018-230901-GW
Operator ID: JZ/JG ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330

Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1A, 254 nm

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 17.52
Response: 7676
Amount: 0.019591



Reviewer: LV5D, 14-Oct-2023 14:19:32
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

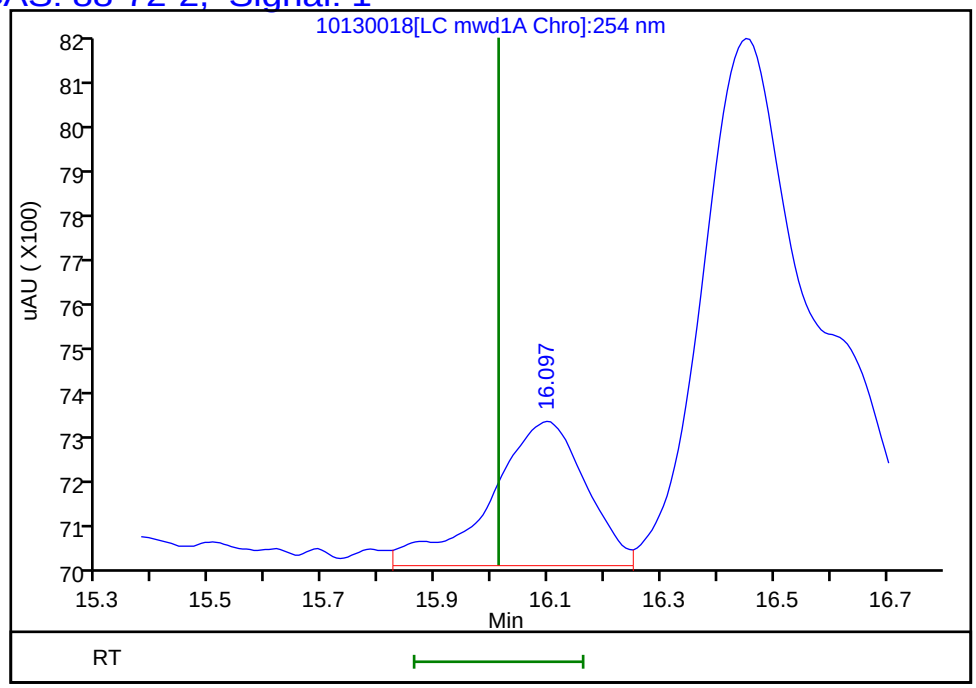
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130018.D				
Injection Date:	13-Oct-2023 21:58:25	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-7-A	Lab Sample ID:	280-182443-7		
Client ID:	WBGmw-018-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 16.10
Response: 3559
Amount: 0.014979



Reviewer: LV5D, 14-Oct-2023 14:19:32
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

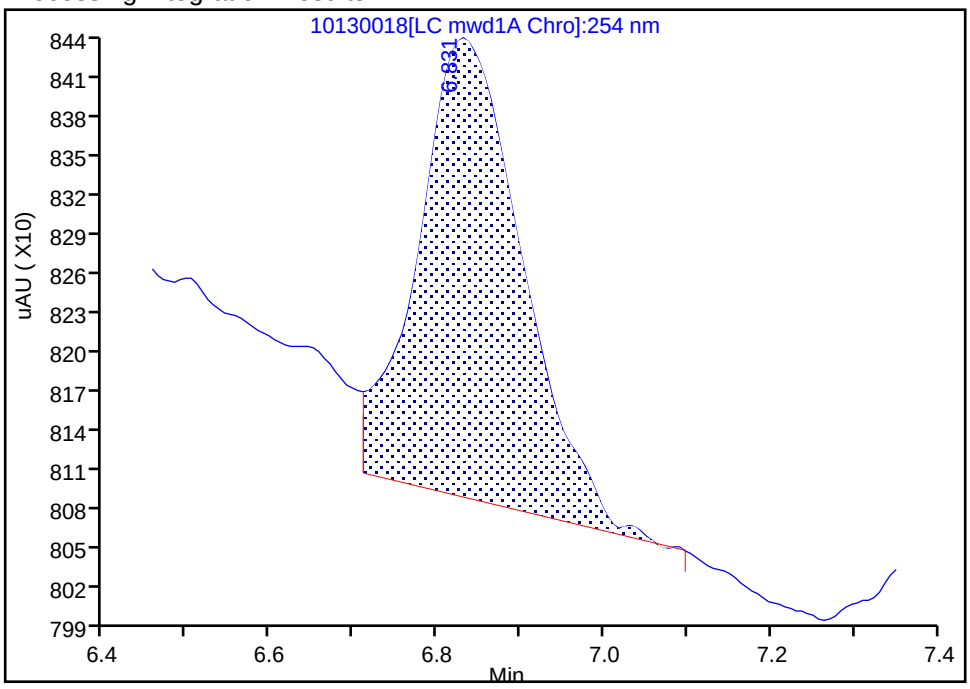
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130018.D				
Injection Date:	13-Oct-2023 21:58:25	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-7-A	Lab Sample ID:	280-182443-7		
Client ID:	WBGmw-018-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

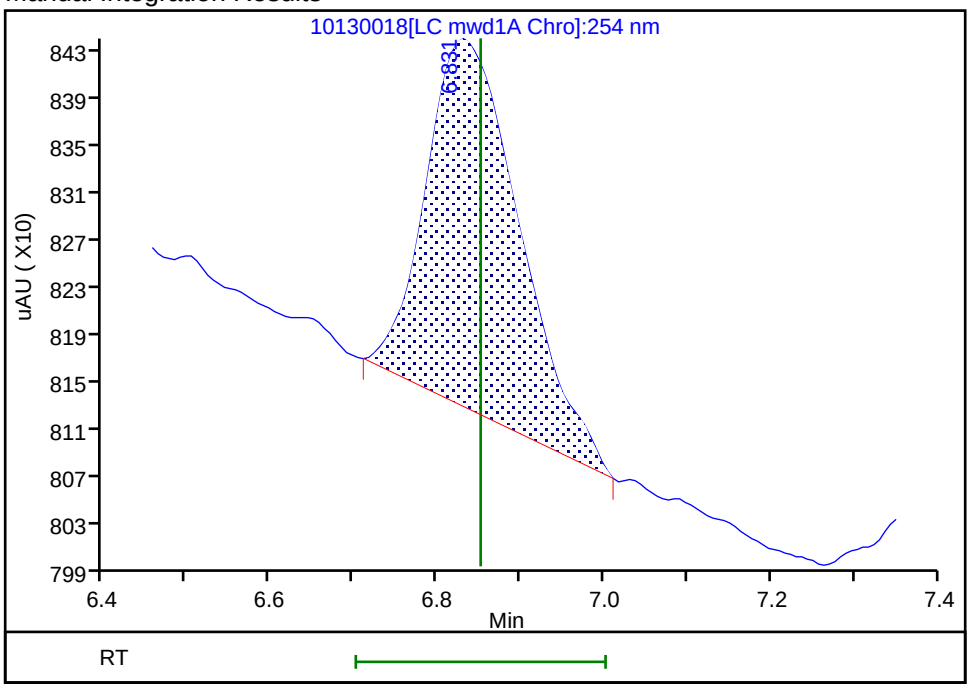
Processing Integration Results

RT: 6.83
Area: 3031
Amount: 0.015944
Amount Units: ug/ml



Manual Integration Results

RT: 6.83
Area: 2401
Amount: 0.012630
Amount Units: ug/ml



Reviewer: LV5D, 14-Oct-2023 14:19:28 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

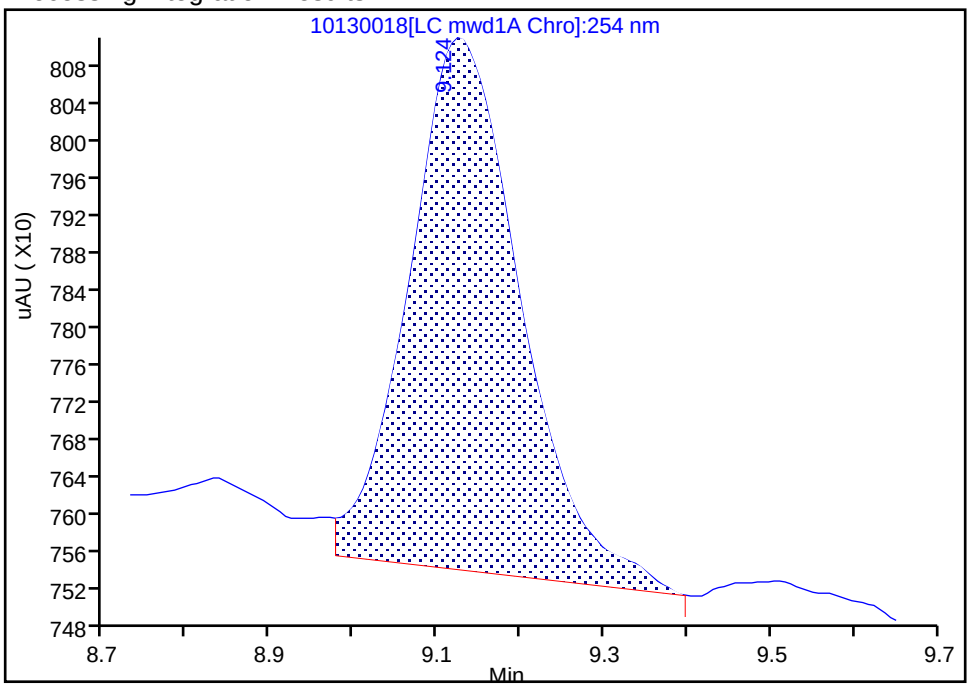
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130018.D				
Injection Date:	13-Oct-2023 21:58:25	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-7-A	Lab Sample ID:	280-182443-7		
Client ID:	WBGmw-018-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

8 RDX, CAS: 121-82-4

Signal: 1

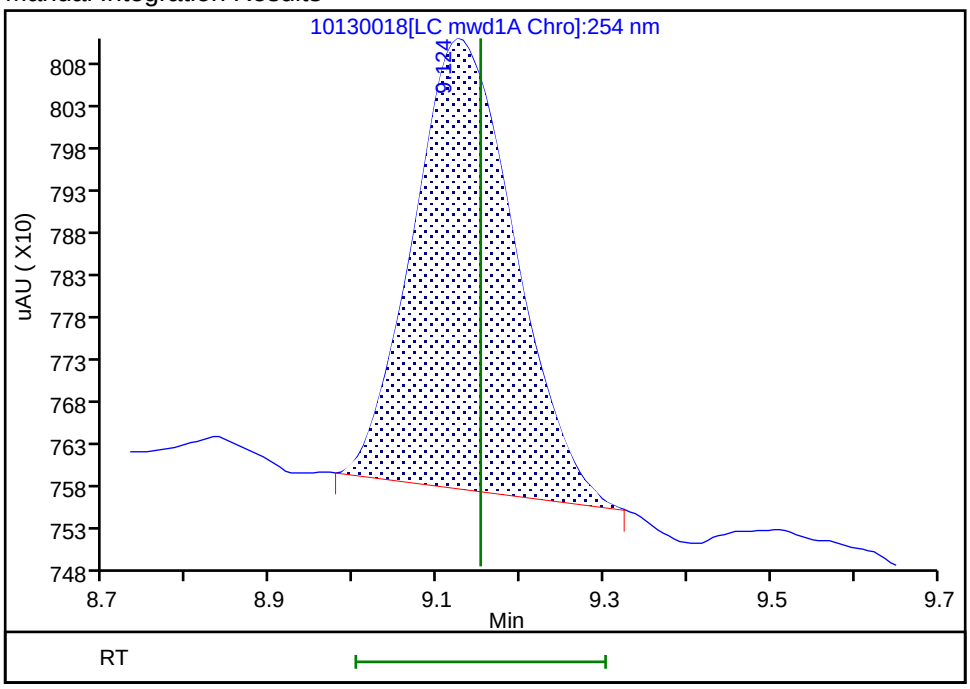
Processing Integration Results

RT: 9.12
Area: 5339
Amount: 0.024215
Amount Units: ug/ml



Manual Integration Results

RT: 9.12
Area: 4516
Amount: 0.020482
Amount Units: ug/ml



Reviewer: LV5D, 14-Oct-2023 14:19:31 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGMW-RB-018-2023 | Lab Sample ID: 280-182443-8

Matrix: Water | Lab File ID: 10120025.D

Analysis Method: 8330B | Date Collected: 10/04/2023 16:00

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 487.4(mL) | Date Analyzed: 10/12/2023 19:27

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
6629-29-4	2,4-diamino-6-nitrotoluene	0.92	U M	1.0	0.92	0.45
121-14-2	2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.92	U	1.0	0.92	0.23
606-20-2	2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U M	0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.088
618-87-1	3,5-Dinitroaniline	0.31	U	0.41	0.31	0.13
99-08-1	3-Nitrotoluene	0.36	U	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
80251-29-2	DNX	0.26	U M	0.51	0.26	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.090
5755-27-1	MNX	0.30	U M	0.51	0.30	0.095
98-95-3	Nitrobenzene	0.21	U M	0.22	0.21	0.093
55-63-0	Nitroglycerin	2.1	U M	2.2	2.1	0.94
78-11-5	PETN	1.0	U M	1.1	1.0	0.46
121-82-4	RDX	0.79	J1	0.22	0.21	0.053
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033
13980-04-6	TNX	0.13	J J1	0.51	0.26	0.081

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	116		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120025.D
Lims ID: 280-182443-A-8-A
Client ID: WBGMW-RB-018-2023
Sample Type: Client
Inject. Date: 12-Oct-2023 19:27:28 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-8-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:42 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: K8YG Date: 13-Oct-2023 08:17:07

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1		6.435			ND	
3 TNX	1	6.454	6.443	0.011	2581	0.0129	
4 HMX	1		6.570			ND	
5 2,4-diamino-6-nitrotoluene	1	6.627	6.629	-0.002	5759	0.0402	M
6 DNX	1		6.770			ND	U
7 MNX	1		7.190			ND	U
8 RDX	1	7.600	7.570	0.030	8515	0.0771	
$ 10 1,2-Dinitrobenzene	1	8.514	8.510	0.004	28652	0.2312	
11 1,3,5-Trinitrobenzene	1	8.640	8.637	0.003	12097	0.0560	
12 1,3-Dinitrobenzene	1	9.274	9.243	0.031	8948	0.0305	
13 Nitrobenzene	1		9.610			ND	U
14 3,5-Dinitroaniline	1		9.823			ND	
15 Tetryl	1		9.956			ND	
16 Nitroglycerin	2		10.403			ND	U
17 2,4,6-Trinitrotoluene	1	10.867	10.836	0.031	2070	0.0101	M
18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	U
20 2,6-Dinitrotoluene	1		11.416			ND	
21 2,4-Dinitrotoluene	1		11.583			ND	
22 o-Nitrotoluene	1		12.383			ND	
23 p-Nitrotoluene	1		12.790			ND	7
24 m-Nitrotoluene	1		13.350			ND	
25 PETN	2		14.463			ND	U

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated
U - Marked Undetected

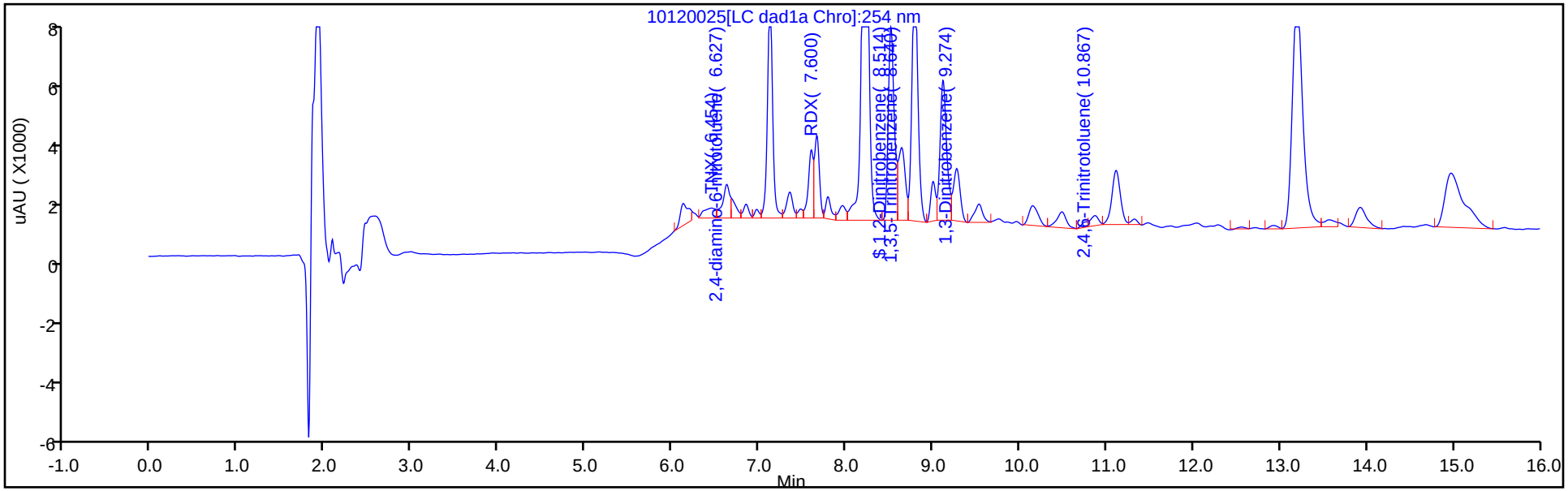
Report Date: 13-Oct-2023 09:16:44 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

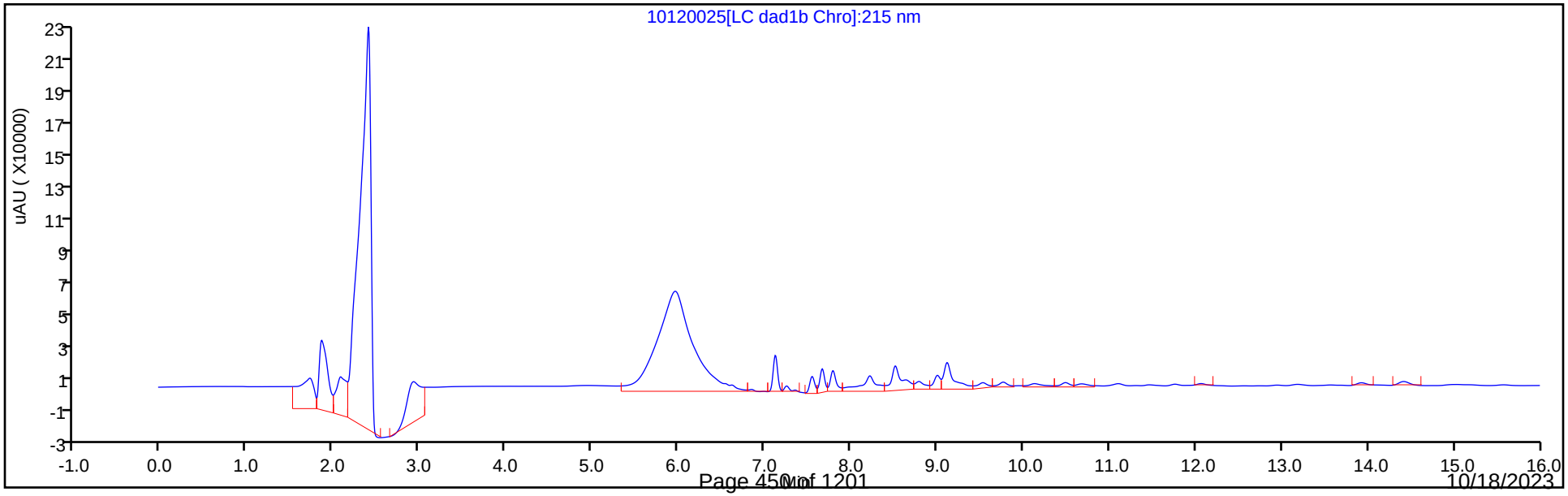
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120025.d

Injection Date:	12-Oct-2023 19:27:28	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8	Worklist Smp#:	25
Client ID:	WBGMW-RB-018-2023				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120025.D				
Lims ID:	280-182443-A-8-A				
Client ID:	WBGMW-RB-018-2023				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 19:27:28	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-8-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 09:16:42	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: K8YG Date: 13-Oct-2023 08:17:07

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2312	115.62

Manual Integration/User Assign Peak Report

Eurofins Denver

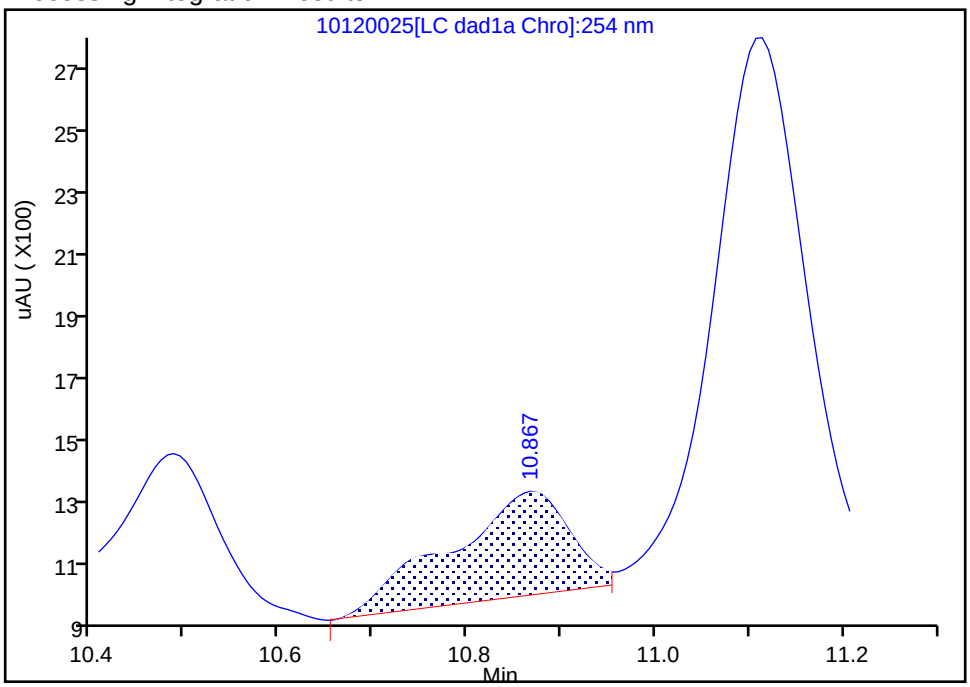
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120025.d				
Injection Date:	12-Oct-2023 19:27:28	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8		
Client ID:	WBGMW-RB-018-2023				
Operator ID:	JZ/JG	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

17 2,4,6-Trinitrotoluene, CAS: 118-96-7

Signal: 1

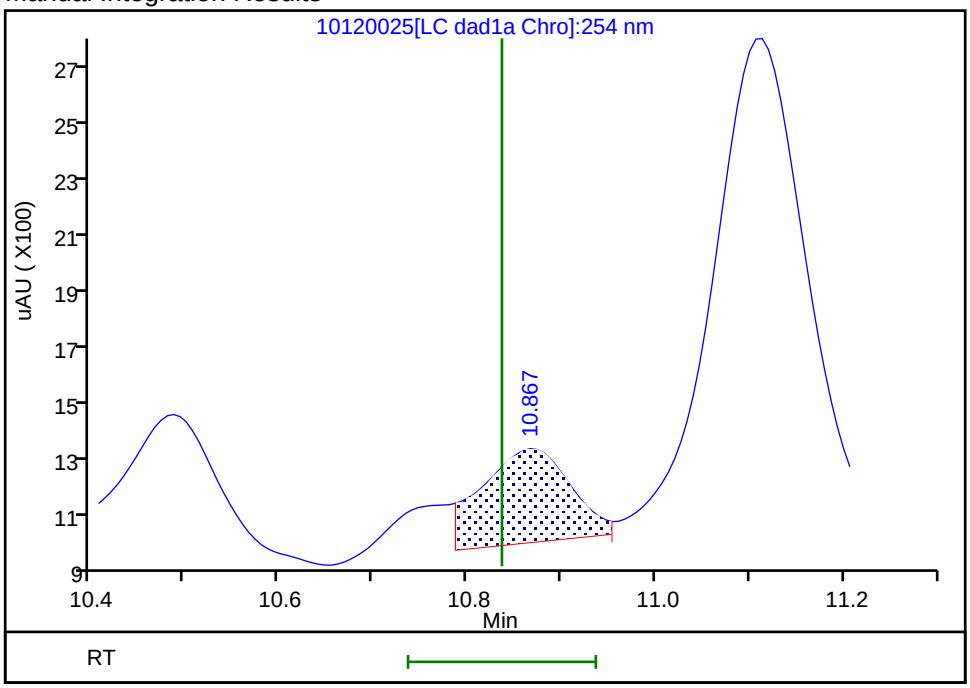
Processing Integration Results

RT: 10.87
Area: 2845
Amount: 0.013885
Amount Units: ug/mL



Manual Integration Results

RT: 10.87
Area: 2070
Amount: 0.010102
Amount Units: ug/mL



Reviewer: K8YG, 13-Oct-2023 08:16:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

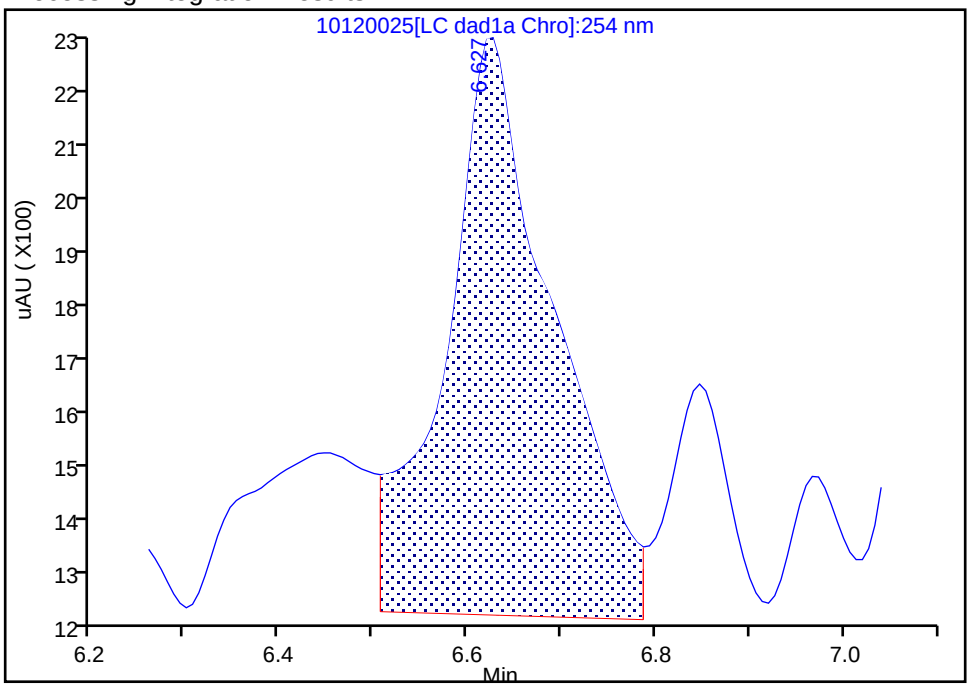
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120025.d				
Injection Date:	12-Oct-2023 19:27:28	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8		
Client ID:	WBGMW-RB-018-2023				
Operator ID:	JZ/JG	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

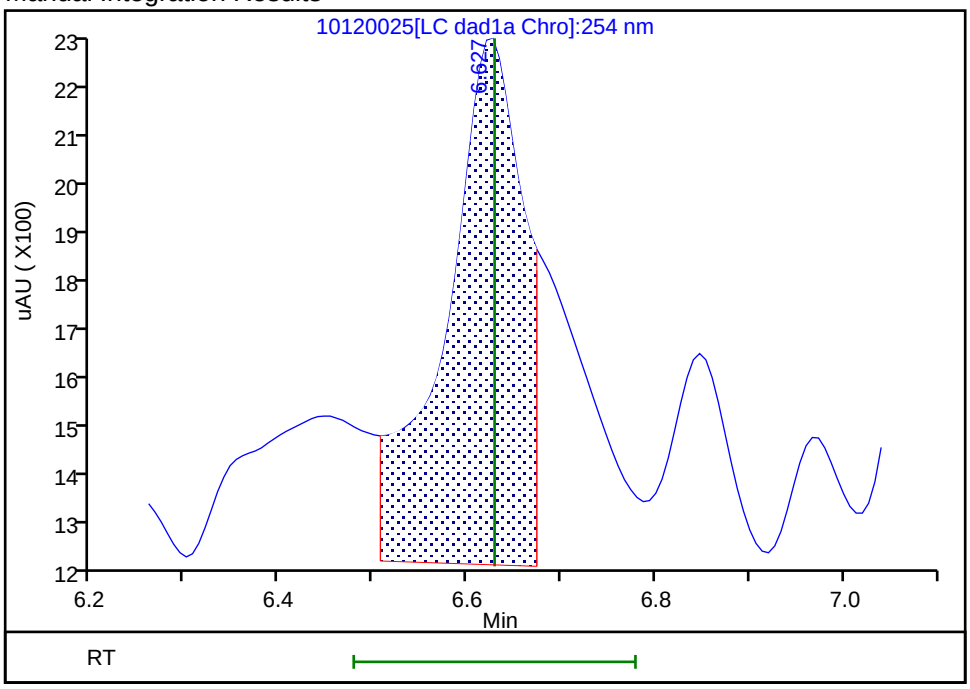
Processing Integration Results

RT: 6.63
Area: 8144
Amount: 0.056821
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 5759
Amount: 0.040181
Amount Units: ug/mL



Reviewer: K8YG, 13-Oct-2023 08:16:17 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

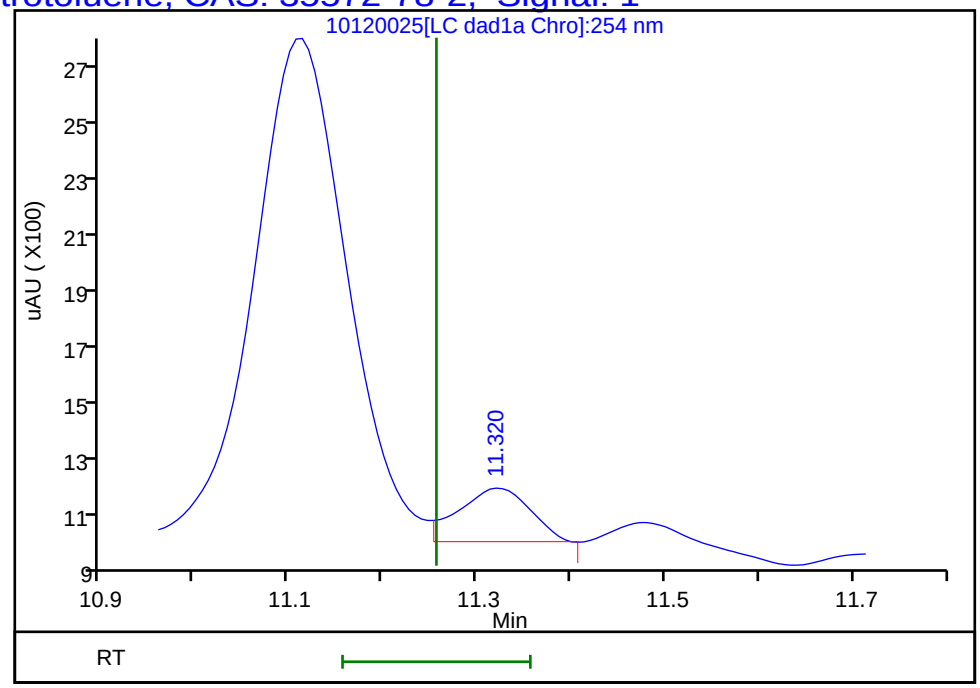
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120025.d
Injection Date: 12-Oct-2023 19:27:28 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-8-A Lab Sample ID: 280-182443-8
Client ID: WBGMW-RB-018-2023
Operator ID: JZ/JG ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 11.32
Response: 941
Amount: 0.004858



Reviewer: K8YG, 13-Oct-2023 08:17:07
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

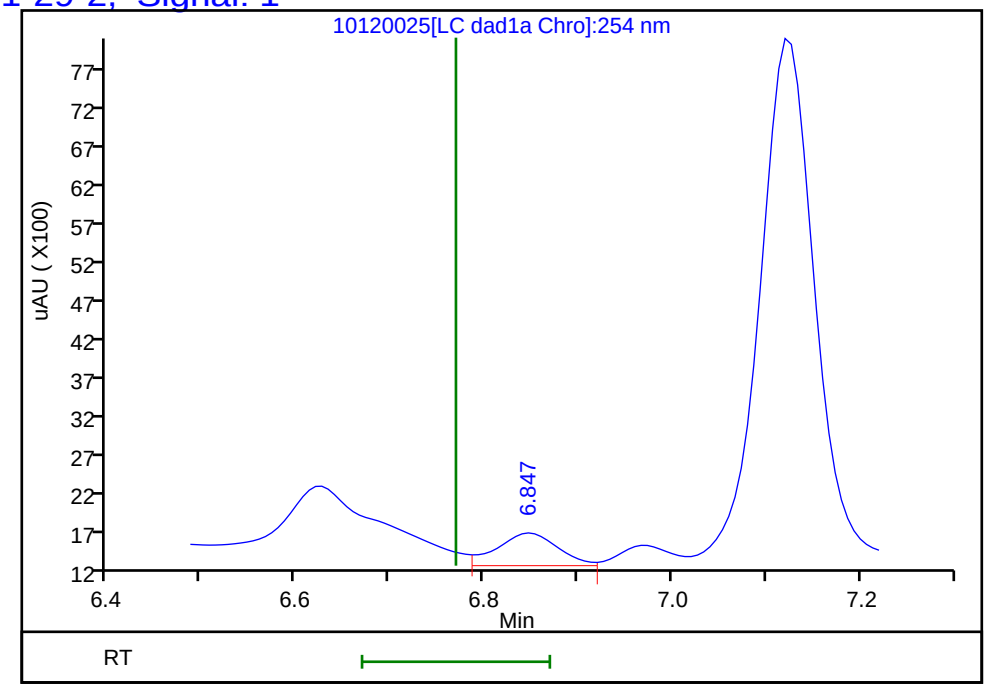
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120025.d
Injection Date: 12-Oct-2023 19:27:28 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-8-A Lab Sample ID: 280-182443-8
Client ID: WBGMW-RB-018-2023
Operator ID: JZ/JG ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2, Signal: 1

RT: 6.85
Response: 1806
Amount: 0.012499



Reviewer: K8YG, 13-Oct-2023 08:17:07
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

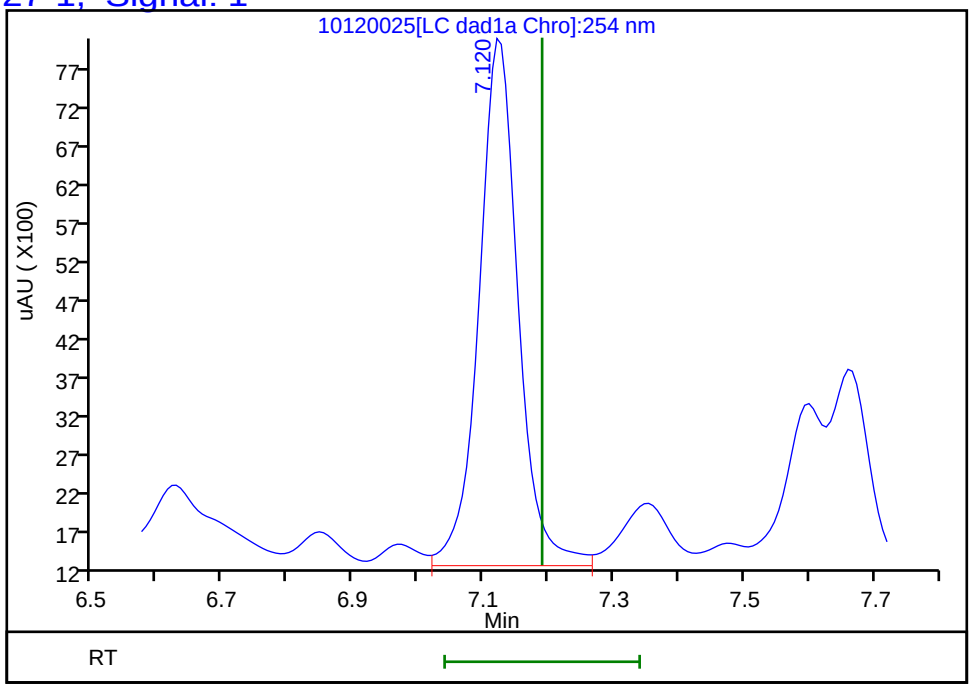
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120025.d				
Injection Date:	12-Oct-2023 19:27:28	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8		
Client ID:	WBGMW-RB-018-2023				
Operator ID:	JZ/JG	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1, Signal: 1

RT: 7.12
Response: 28421
Amount: 0.204927



Reviewer: K8YG, 13-Oct-2023 08:17:07
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

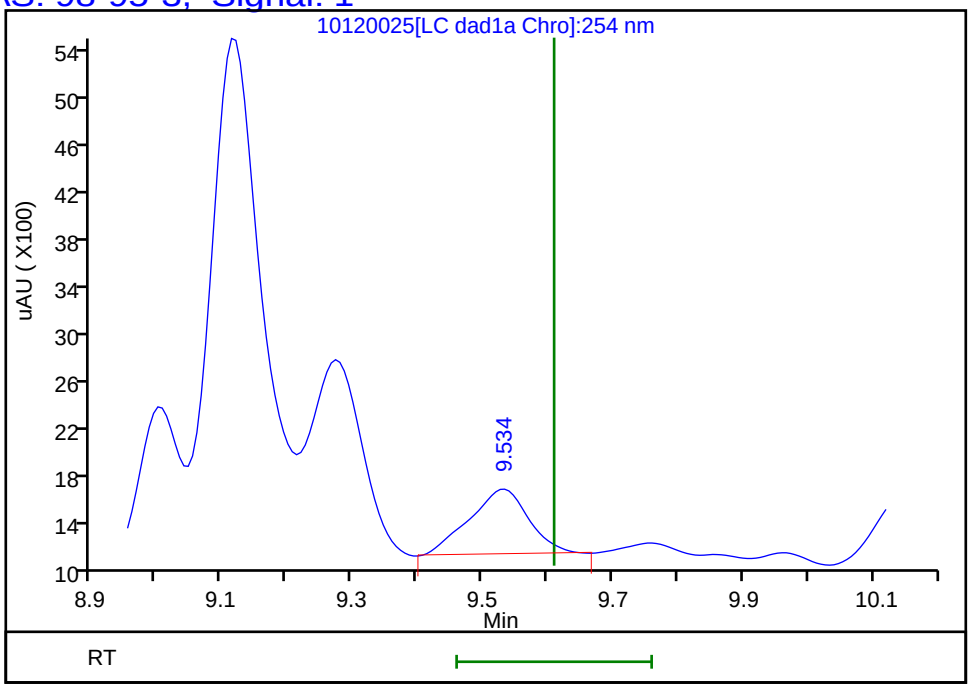
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120025.d
Injection Date: 12-Oct-2023 19:27:28 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-8-A Lab Sample ID: 280-182443-8
Client ID: WBGMW-RB-018-2023
Operator ID: JZ/JG ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

13 Nitrobenzene, CAS: 98-95-3, Signal: 1

RT: 9.53
Response: 3544
Amount: 0.018392



Reviewer: K8YG, 13-Oct-2023 08:17:07
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGMW-RB-018-2023 | Lab Sample ID: 280-182443-8

Matrix: Water | Lab File ID: 10130019.D

Analysis Method: 8330B | Date Collected: 10/04/2023 16:00

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 487.4(mL) | Date Analyzed: 10/13/2023 22:33

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: Luna-phenylhex ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629680 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U Q	0.22	0.21	0.086
99-65-0	1,3-Dinitrobenzene	0.10	U Q	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U Q	0.11	0.10	0.046
121-82-4	*RDX*	*3.3*	*Q J1*	*0.22*	0.21	*0.053*
13980-04-6	*TNX*	*1.2*	*Q J1*	*0.51*	0.26	*0.081*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	142	*Q*	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130019.D
Lims ID: 280-182443-A-8-A
Client ID: WBGMW-RB-018-2023
Sample Type: Client
Inject. Date: 13-Oct-2023 22:33:21 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-8-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X5

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 14:31:09 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 14-Oct-2023 14:19:58

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1	2,6-diamino-4-nitrotoluene	1		4.218			ND	
2	2,4-diamino-6-nitrotoluene	1		4.852			ND	
3	TNX	1	5.261	5.305	-0.044	47494	0.1209	
4	DNX	1		6.185			ND	
5	HMX	1	6.855	6.852	0.003	16543	0.0870	M
6	MNX	1		7.718			ND	
8	RDX	1	9.148	9.152	-0.004	70342	0.3190	
9	Nitrobenzene	1		11.752			ND	7
$ 10	1,2-Dinitrobenzene	1	12.734	12.752	-0.018	75596	0.2834	
11	3,5-Dinitroaniline	1	14.574	14.598	-0.024	1826	0.004256	M
12	1,3-Dinitrobenzene	1		14.858			ND	
13	Nitroglycerin	2		15.425			ND	
14	o-Nitrotoluene	1		16.012			ND	U
16	p-Nitrotoluene	1		16.245			ND	
17	4-Amino-2,6-dinitrotoluene	1		16.778			ND	
18	m-Nitrotoluene	1		17.105			ND	U
19	2-Amino-4,6-dinitrotoluene	1		17.638			ND	U
20	1,3,5-Trinitrobenzene	1		17.665			ND	
21	2,6-Dinitrotoluene	1		18.932			ND	U
22	2,4-Dinitrotoluene	1		19.385			ND	
23	Tetryl	1		22.765			ND	
24	2,4,6-Trinitrotoluene	1		23.578			ND	
25	PETN	2		24.878			ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
M - Manually Integrated
U - Marked Undetected

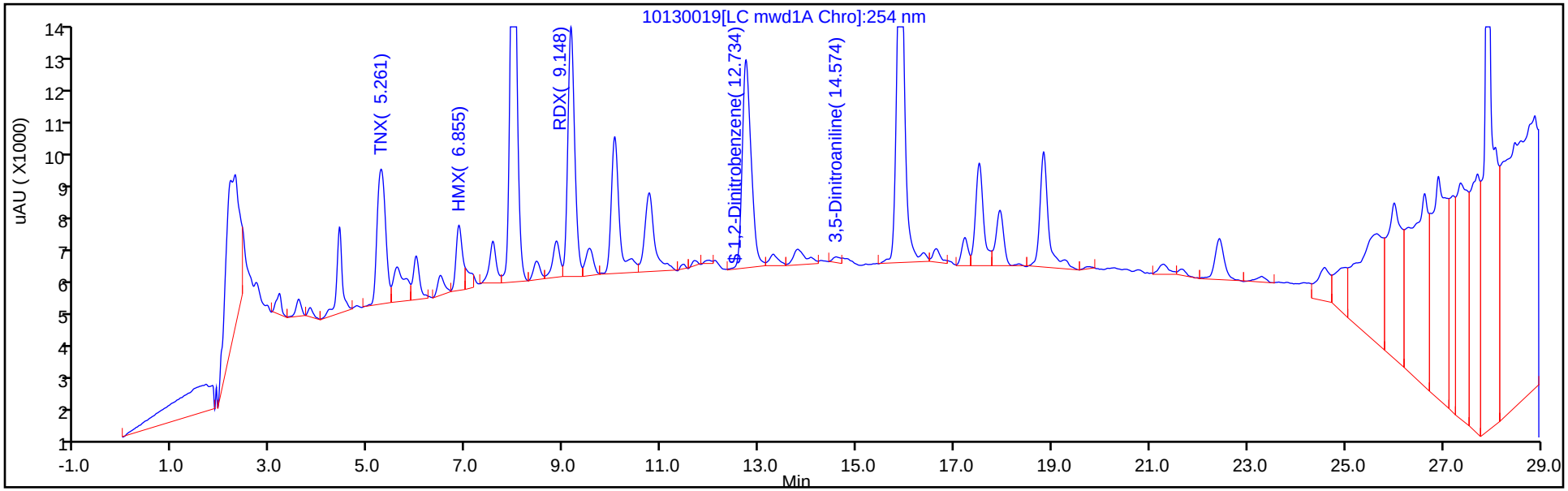
Report Date: 14-Oct-2023 14:31:12 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

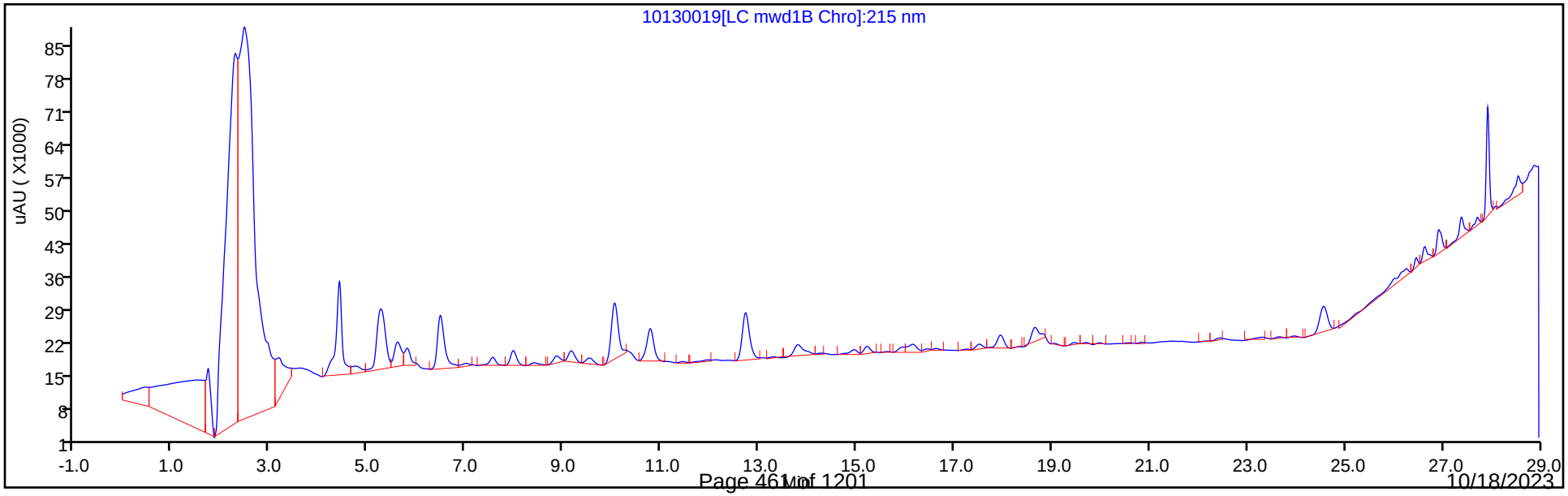
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130019.D

Injection Date:	13-Oct-2023 22:33:21	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8	Worklist Smp#:	19
Client ID:	WBGMW-RB-018-2023				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130019.D				
Lims ID:	280-182443-A-8-A				
Client ID:	WBGMW-RB-018-2023				
Sample Type:	Client				
Inject. Date:	13-Oct-2023 22:33:21	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-8-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	14-Oct-2023 14:31:09	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1649				

First Level Reviewer: LV5D Date: 14-Oct-2023 14:19:58

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2834	141.70

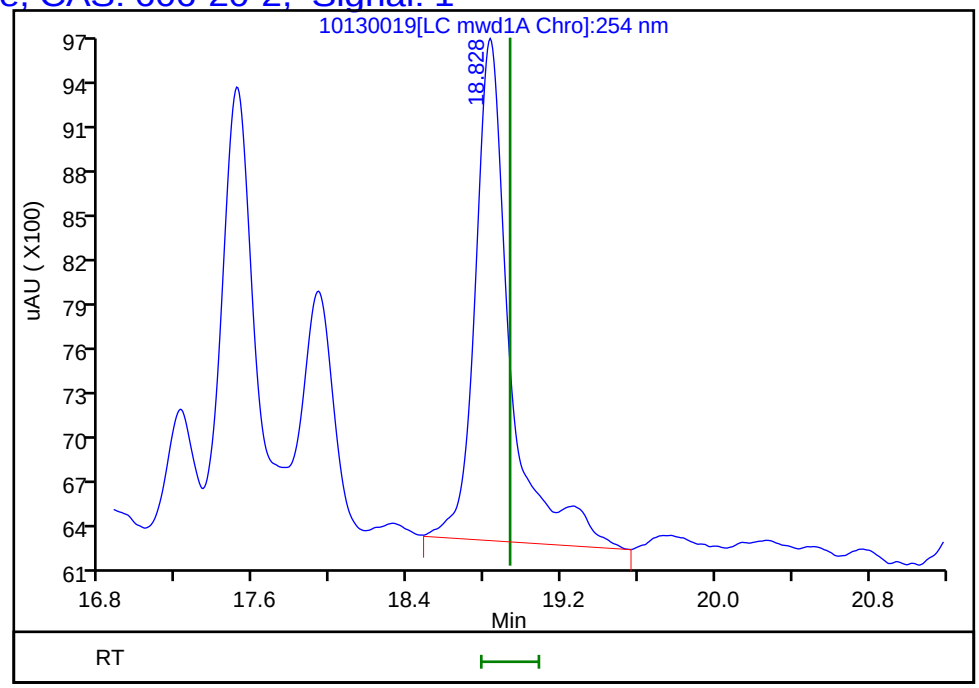
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130019.D				
Injection Date:	13-Oct-2023 22:33:21	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8		
Client ID:	WBGMW-RB-018-2023				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

21 2,6-Dinitrotoluene, CAS: 606-20-2, Signal: 1

RT: 18.83
Response: 41310
Amount: 0.150618



Reviewer: LV5D, 14-Oct-2023 14:19:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

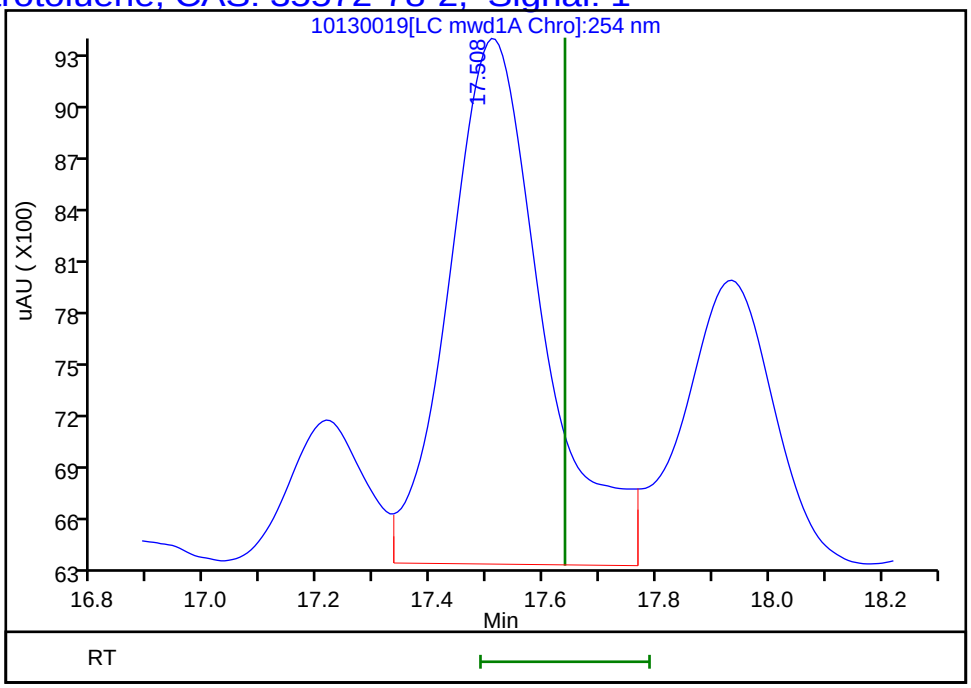
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130019.D				
Injection Date:	13-Oct-2023 22:33:21	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8		
Client ID:	WBGMW-RB-018-2023				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2, Signal: 1

RT: 17.51
Response: 33610
Amount: 0.085779



Reviewer: LV5D, 14-Oct-2023 14:19:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

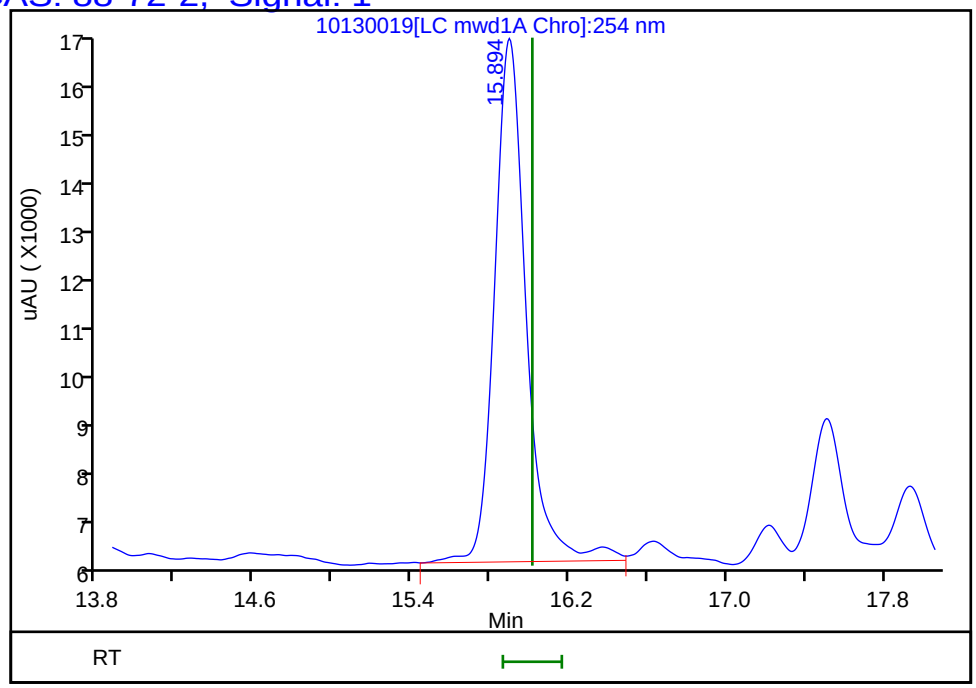
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130019.D				
Injection Date:	13-Oct-2023 22:33:21	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8		
Client ID:	WBGMW-RB-018-2023				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2, Signal: 1

RT: 15.89
Response: 117183
Amount: 0.493203



Reviewer: LV5D, 14-Oct-2023 14:19:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

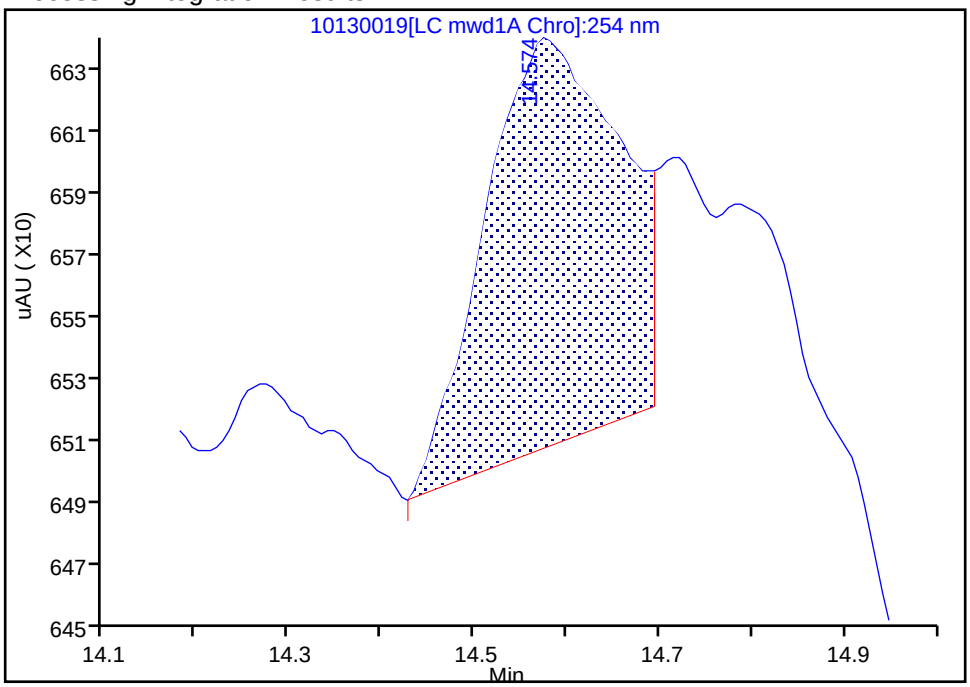
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130019.D				
Injection Date:	13-Oct-2023 22:33:21	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8		
Client ID:	WBGMW-RB-018-2023				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

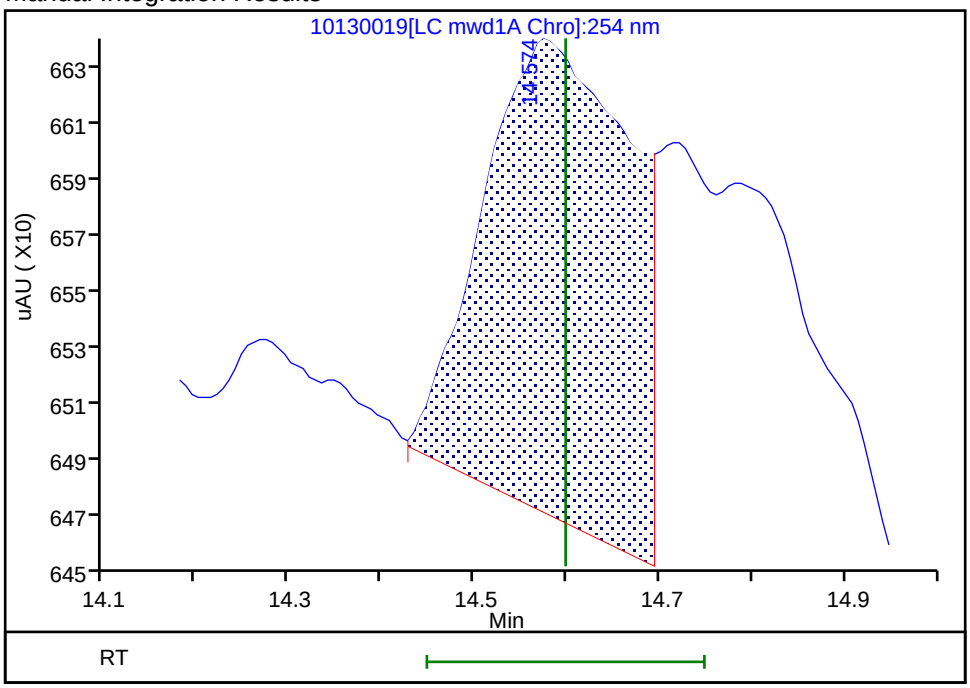
Processing Integration Results

RT: 14.57
Area: 1242
Amount: 0.002845
Amount Units: ug/ml



Manual Integration Results

RT: 14.57
Area: 1826
Amount: 0.004256
Amount Units: ug/ml



Reviewer: LV5D, 14-Oct-2023 14:19:56 -06:00:00 (UTC)

Audit Action: Assigned New Baseline Audit Reason: Baseline Smoothing

User Disabled Compound Report

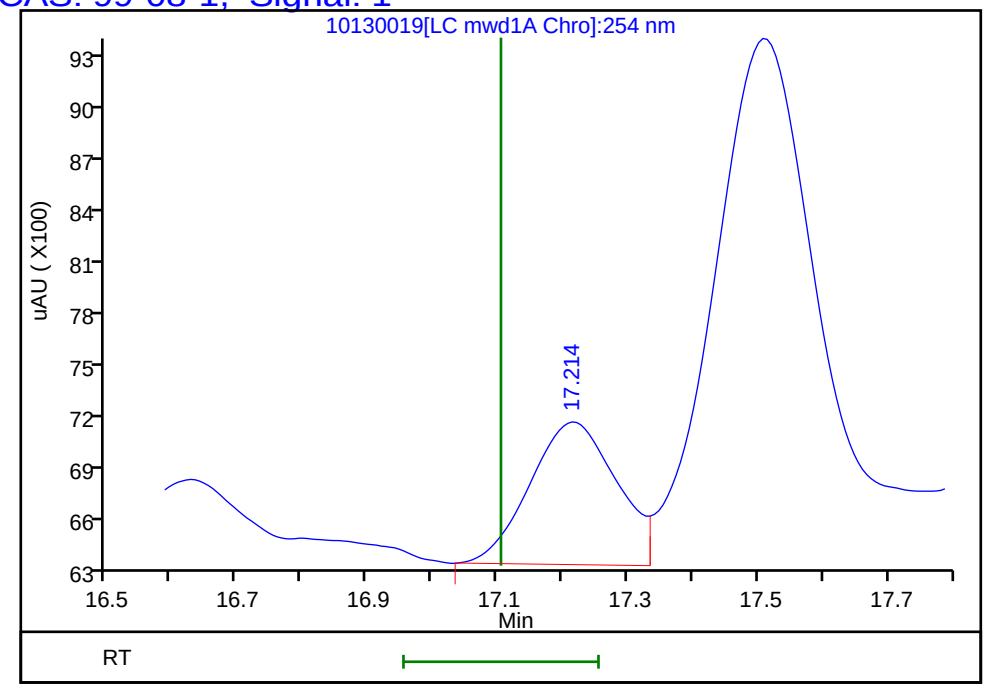
Eurofins Denver

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130019.D

Injection Date:	13-Oct-2023 22:33:21	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8		
Client ID:	WBGMW-RB-018-2023				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

18 m-Nitrotoluene, CAS: 99-08-1, Signal: 1

RT: 17.21
Response: 7292
Amount: 0.026949



Reviewer: LV5D, 14-Oct-2023 14:19:58
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Manual Integration/User Assign Peak Report

Eurofins Denver

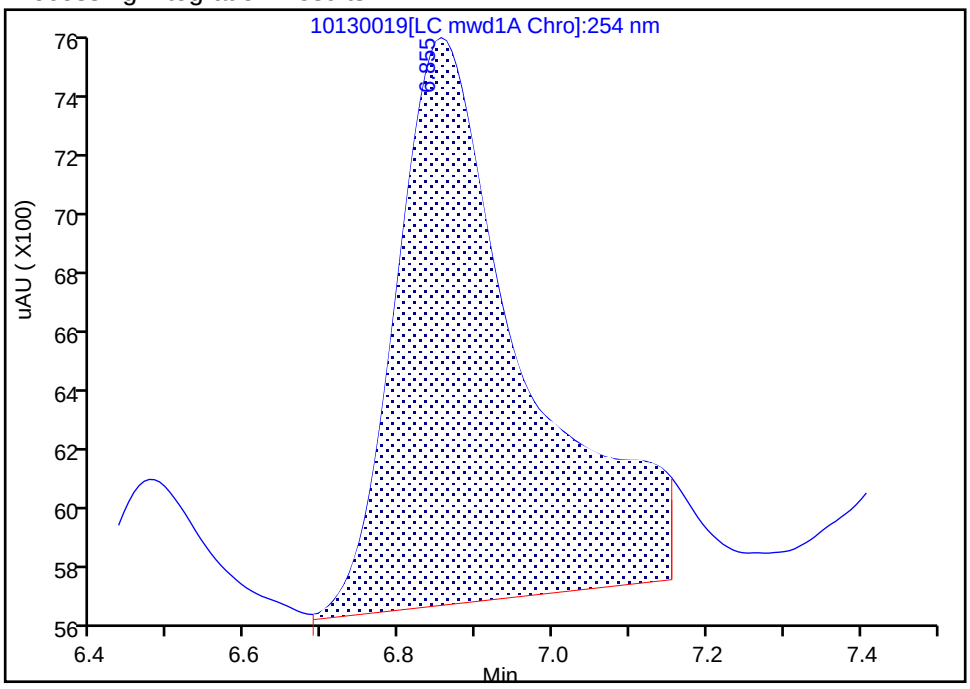
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130019.D				
Injection Date:	13-Oct-2023 22:33:21	Instrument ID:	CHHPLC_X5		
Lims ID:	280-182443-A-8-A	Lab Sample ID:	280-182443-8		
Client ID:	WBGMW-RB-018-2023				
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

5 HMX, CAS: 2691-41-0

Signal: 1

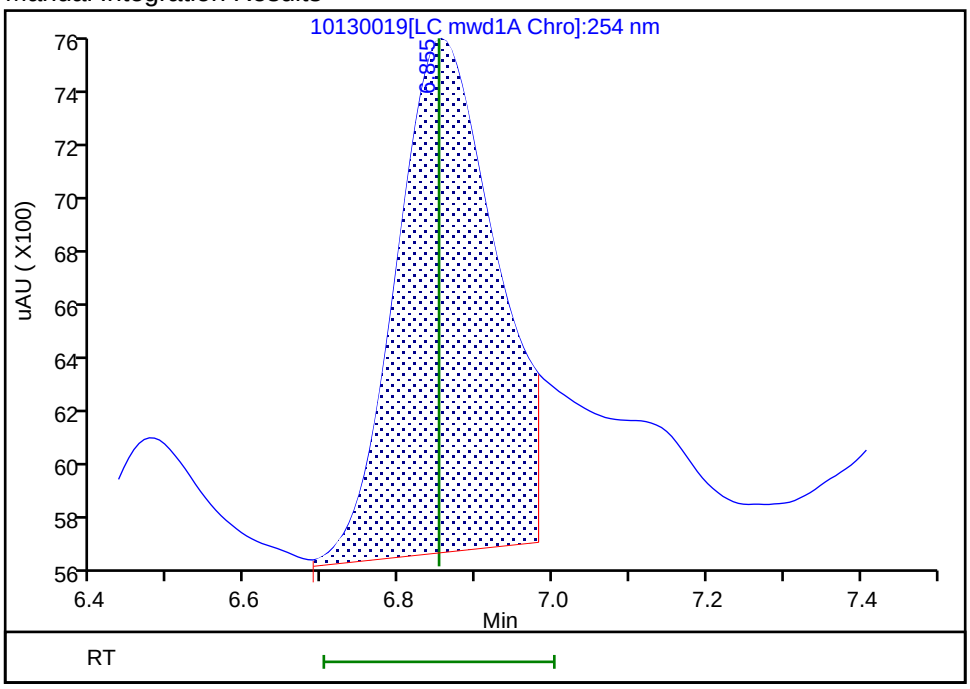
Processing Integration Results

RT: 6.85
Area: 21147
Amount: 0.111241
Amount Units: ug/ml



Manual Integration Results

RT: 6.85
Area: 16543
Amount: 0.087023
Amount Units: ug/ml



Reviewer: LV5D, 14-Oct-2023 14:19:48 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: WBGmw-017-230901-GW | Lab Sample ID: 280-182443-9

Matrix: Water | Lab File ID: 10120026.D

Analysis Method: 8330B | Date Collected: 10/04/2023 16:00

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 487(mL) | Date Analyzed: 10/12/2023 19:50

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.086
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.046
6629-29-4	2,4-diamino-6-nitrotoluene	0.92	U	1.0	0.92	0.45
121-14-2	2,4-Dinitrotoluene	0.082	U	0.10	0.082	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.92	U	1.0	0.92	0.23
606-20-2	2,6-Dinitrotoluene	0.082	U	0.10	0.082	0.041
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.052
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.088
618-87-1	3,5-Dinitroaniline	0.31	U	0.41	0.31	0.14
99-08-1	3-Nitrotoluene	0.36	U	0.41	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.059
99-99-0	4-Nitrotoluene	0.41	U	0.42	0.41	0.10
80251-29-2	DNX	0.26	U	0.51	0.26	0.10
2691-41-0	HMX	0.21	U M	0.22	0.21	0.090
5755-27-1	MNX	0.30	U	0.51	0.30	0.095
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.093
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.95
78-11-5	PETN	1.0	U	1.1	1.0	0.46
121-82-4	RDX	0.21	U	0.22	0.21	0.053
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033
13980-04-6	TNX	0.26	U	0.51	0.26	0.081

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120026.D
Lims ID: 280-182443-B-9-A
Client ID: WBGmw-017-230901-GW
Sample Type: Client
Inject. Date: 12-Oct-2023 19:50:21 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-B-9-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:42 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: K8YG Date: 13-Oct-2023 08:17:39

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	2 2,6-diamino-4-nitrotoluene	1		6.435			ND	
	3 TNX	1		6.443			ND	
	4 HMX	1		6.570			ND	U
	5 2,4-diamino-6-nitrotoluene	1		6.629			ND	
	6 DNX	1		6.770			ND	
	7 MNX	1		7.190			ND	
	8 RDX	1		7.570			ND	
$	10 1,2-Dinitrobenzene	1	8.513	8.510	0.003	24423	0.1971	M
	11 1,3,5-Trinitrobenzene	1		8.637			ND	
	12 1,3-Dinitrobenzene	1		9.243			ND	
	13 Nitrobenzene	1		9.610			ND	
	14 3,5-Dinitroaniline	1		9.823			ND	
	15 Tetryl	1		9.956			ND	
	16 Nitroglycerin	2		10.403			ND	
	17 2,4,6-Trinitrotoluene	1		10.836			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
	20 2,6-Dinitrotoluene	1		11.416			ND	
	21 2,4-Dinitrotoluene	1		11.583			ND	
	22 o-Nitrotoluene	1		12.383			ND	
	23 p-Nitrotoluene	1		12.790			ND	
	24 m-Nitrotoluene	1		13.350			ND	
	25 PETN	2		14.463			ND	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
U - Marked Undetected

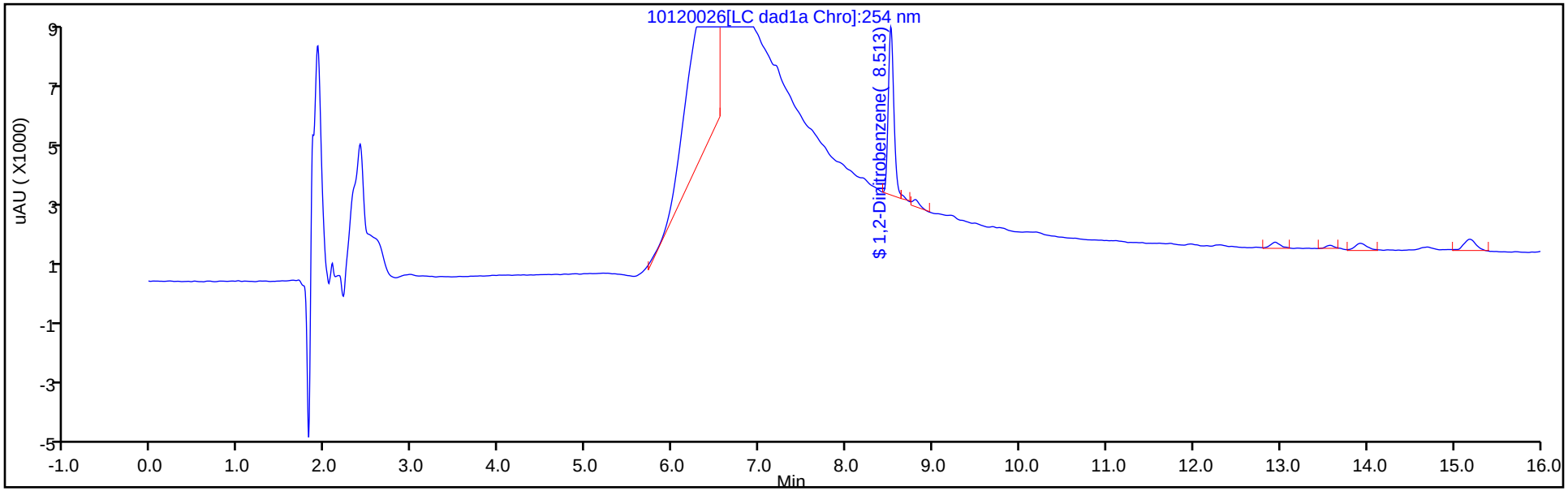
Report Date: 13-Oct-2023 09:16:46 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

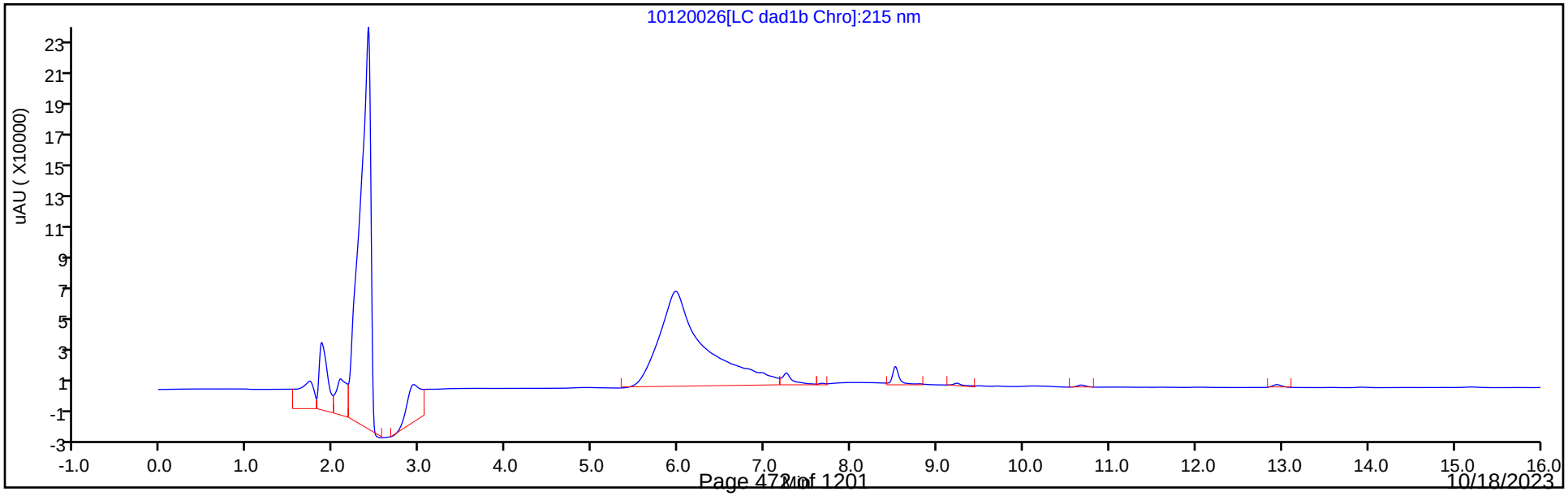
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120026.d

Injection Date:	12-Oct-2023 19:50:21	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-B-9-A	Lab Sample ID:	280-182443-9	Worklist Smp#:	26
Client ID:	WBGmw-017-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120026.D				
Lims ID:	280-182443-B-9-A				
Client ID:	WBGmw-017-230901-GW				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 19:50:21	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-B-9-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 09:16:42	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: K8YG Date: 13-Oct-2023 08:17:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1971	98.55

Manual Integration/User Assign Peak Report

Eurofins Denver

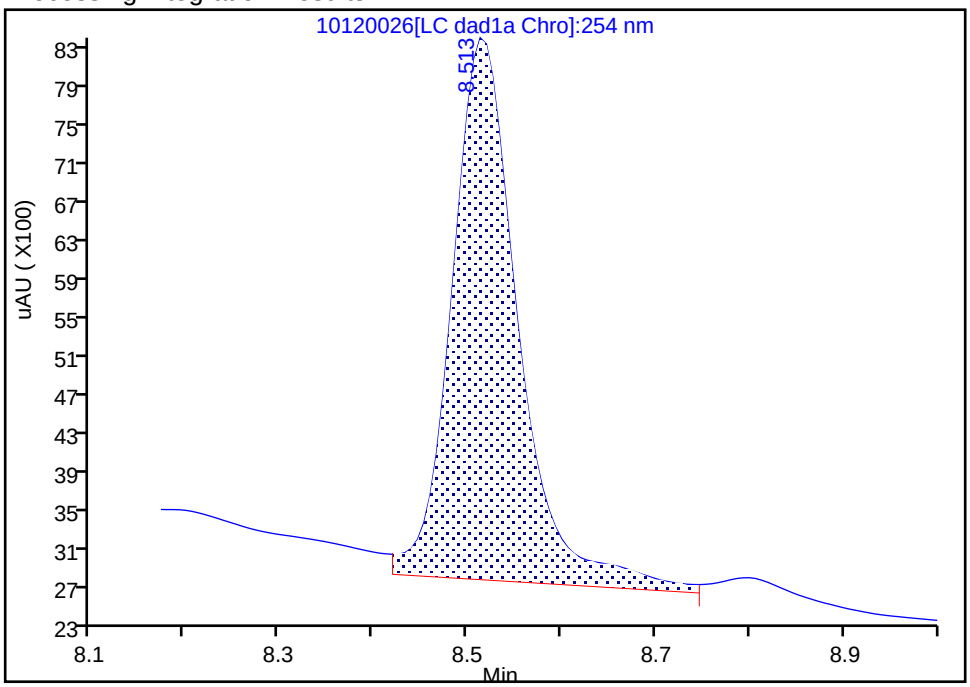
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120026.d				
Injection Date:	12-Oct-2023 19:50:21	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-B-9-A	Lab Sample ID:	280-182443-9		
Client ID:	WBGmw-017-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

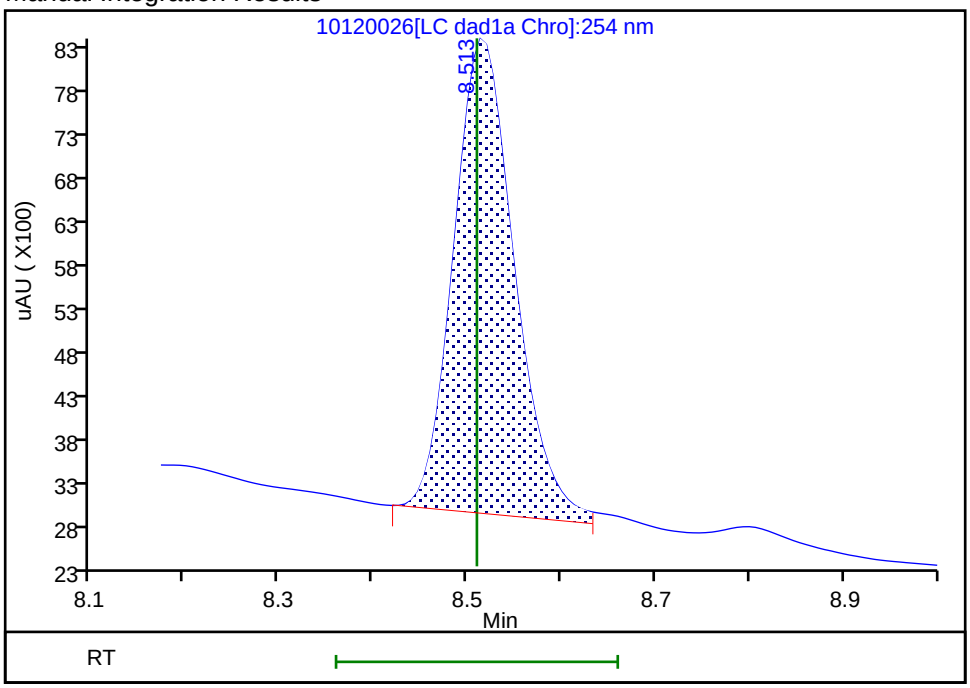
Processing Integration Results

RT: 8.51
Area: 27390
Amount: 0.221046
Amount Units: ug/mL



Manual Integration Results

RT: 8.51
Area: 24423
Amount: 0.197101
Amount Units: ug/mL



Reviewer: K8YG, 13-Oct-2023 08:17:34 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

User Disabled Compound Report

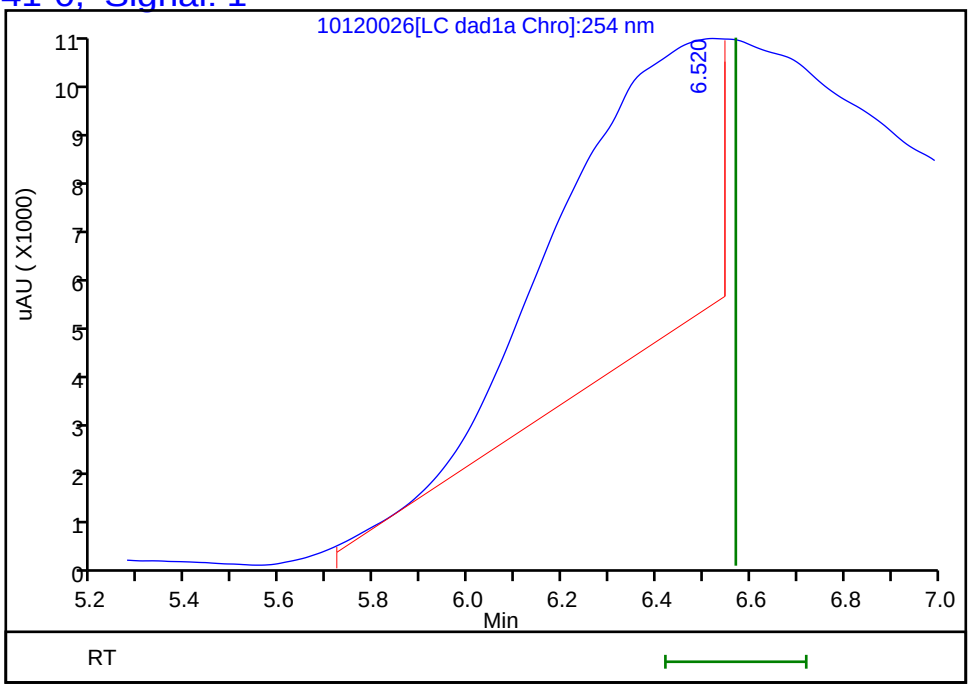
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120026.d
Injection Date: 12-Oct-2023 19:50:21 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-B-9-A Lab Sample ID: 280-182443-9
Client ID: WBGmw-017-230901-GW
Operator ID: JZ/JG ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0, Signal: 1

RT: 6.52
Response: 130275
Amount: 1.382150



Reviewer: K8YG, 13-Oct-2023 08:17:39
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: FBQmw-175-230901-GW | Lab Sample ID: 280-182443-10

Matrix: Water | Lab File ID: 10120027.D

Analysis Method: 8330B | Date Collected: 10/04/2023 15:25

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 464.4(mL) | Date Analyzed: 10/12/2023 20:13

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.22	U	0.23	0.22	0.091
99-65-0	1,3-Dinitrobenzene	0.11	U	0.12	0.11	0.040
118-96-7	2,4,6-Trinitrotoluene	0.11	U	0.12	0.11	0.048
6629-29-4	2,4-diamino-6-nitrotoluene	0.97	U	1.1	0.97	0.47
121-14-2	2,4-Dinitrotoluene	0.086	U	0.11	0.086	0.030
59229-75-3	2,6-diamino-4-nitrotoluene	0.97	U M	1.1	0.97	0.24
606-20-2	2,6-Dinitrotoluene	0.086	U	0.11	0.086	0.043
35572-78-2	2-Amino-4,6-dinitrotoluene	0.11	U	0.12	0.11	0.055
88-72-2	2-Nitrotoluene	0.22	U	0.23	0.22	0.092
618-87-1	3,5-Dinitroaniline	0.32	U	0.43	0.32	0.14
99-08-1	3-Nitrotoluene	0.38	U	0.43	0.38	0.21
19406-51-0	4-Amino-2,6-dinitrotoluene	0.13	U	0.16	0.13	0.062
99-99-0	4-Nitrotoluene	0.43	U	0.44	0.43	0.11
80251-29-2	DNX	0.27	U	0.54	0.27	0.10
2691-41-0	HMX	0.22	U	0.23	0.22	0.094
5755-27-1	MNX	0.31	U	0.54	0.31	0.10
98-95-3	Nitrobenzene	0.22	U	0.23	0.22	0.098
55-63-0	Nitroglycerin	2.2	U	2.3	2.2	0.99
78-11-5	PETN	1.1	U	1.2	1.1	0.48
121-82-4	RDX	0.22	U M	0.23	0.22	0.055
479-45-8	Tetryl	0.11	U	0.12	0.11	0.034
13980-04-6	TNX	0.27	U	0.54	0.27	0.085

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120027.D
Lims ID: 280-182443-A-10-A
Client ID: FBQmw-175-230901-GW
Sample Type: Client
Inject. Date: 12-Oct-2023 20:13:20 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-10-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 12:21:23 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: K8YG Date: 13-Oct-2023 12:21:23

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	2 2,6-diamino-4-nitrotoluene	1		6.435			ND	U
	3 TNX	1		6.443			ND	
	4 HMX	1		6.570			ND	
	5 2,4-diamino-6-nitrotoluene	1		6.629			ND	
	6 DNX	1		6.770			ND	
	7 MNX	1		7.190			ND	
	8 RDX	1		7.570			ND	U
$	10 1,2-Dinitrobenzene	1	8.513	8.510	0.003	22783	0.1839	M
	11 1,3,5-Trinitrobenzene	1		8.637			ND	
	12 1,3-Dinitrobenzene	1		9.243			ND	
	13 Nitrobenzene	1		9.610			ND	
	14 3,5-Dinitroaniline	1		9.823			ND	
	15 Tetryl	1		9.956			ND	
	16 Nitroglycerin	2		10.403			ND	
	17 2,4,6-Trinitrotoluene	1		10.836			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
	20 2,6-Dinitrotoluene	1		11.416			ND	
	21 2,4-Dinitrotoluene	1		11.583			ND	
	22 o-Nitrotoluene	1		12.383			ND	
	23 p-Nitrotoluene	1		12.790			ND	
	24 m-Nitrotoluene	1		13.350			ND	
	25 PETN	2		14.463			ND	

QC Flag Legend
Processing Flags

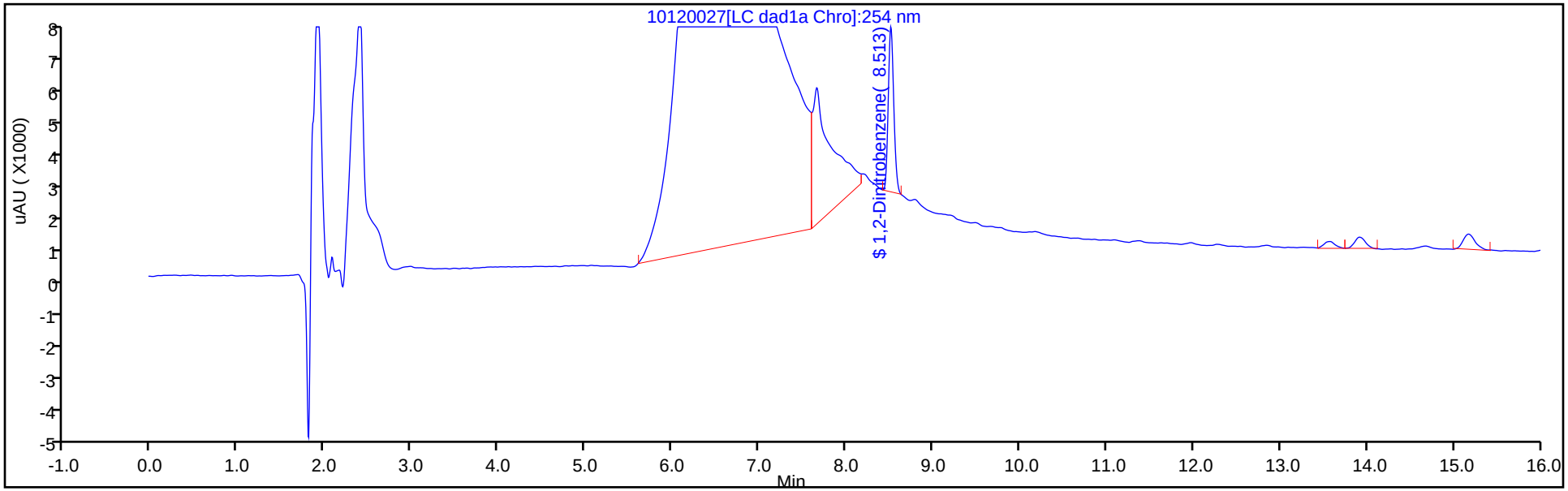
Review Flags
M - Manually Integrated
U - Marked Undetected

Report Date: 13-Oct-2023 12:21:23 Chrom Revision: 2.3 22-Sep-2023 11:33:50

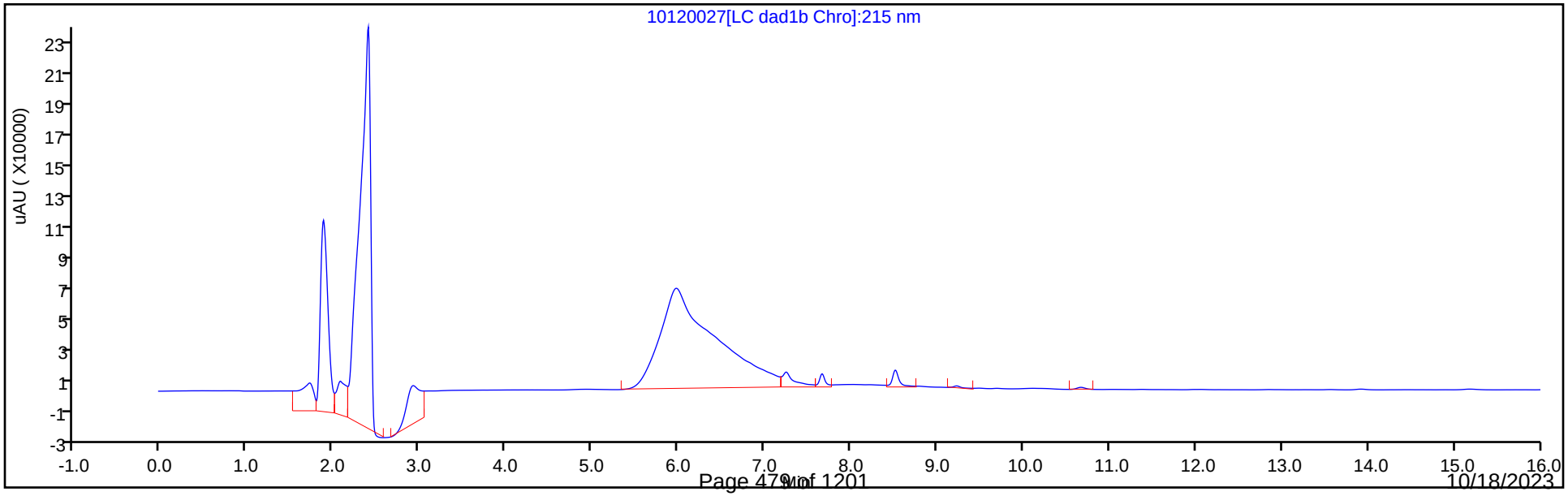
Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120027.d				
Injection Date:	12-Oct-2023 20:13:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-A-10-A	Lab Sample ID:	280-182443-10	Worklist Smp#:	27
Client ID:	FBQmw-175-230901-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120027.D				
Lims ID:	280-182443-A-10-A				
Client ID:	FBQmw-175-230901-GW				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 20:13:20	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-10-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 12:21:23	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: K8YG Date: 13-Oct-2023 12:21:23

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1839	91.93

Manual Integration/User Assign Peak Report

Eurofins Denver

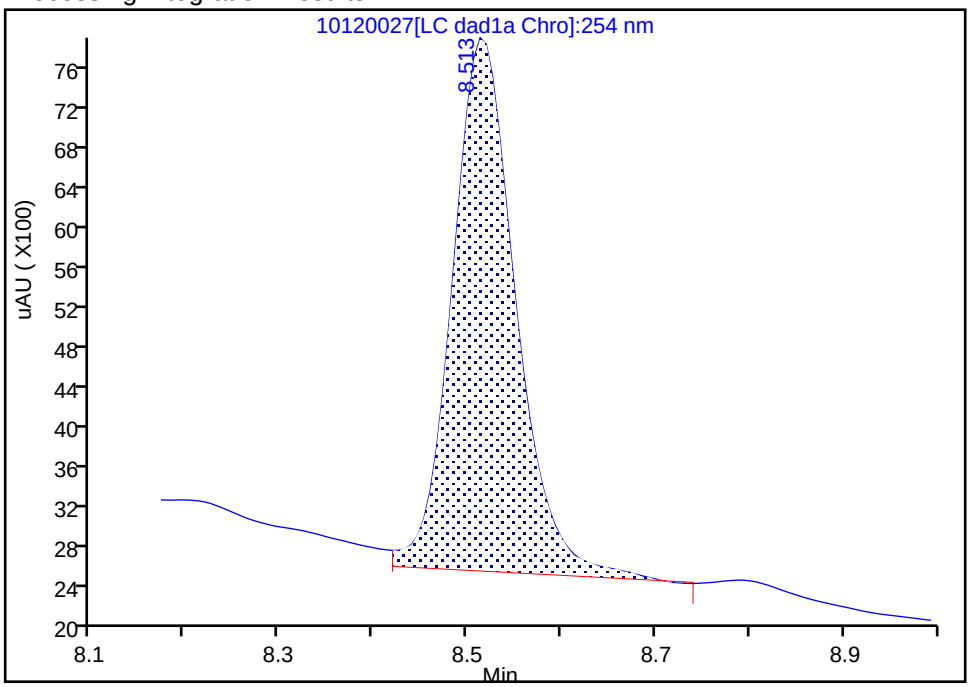
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120027.d				
Injection Date:	12-Oct-2023 20:13:20	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-10-A	Lab Sample ID:	280-182443-10		
Client ID:	FBQmw-175-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

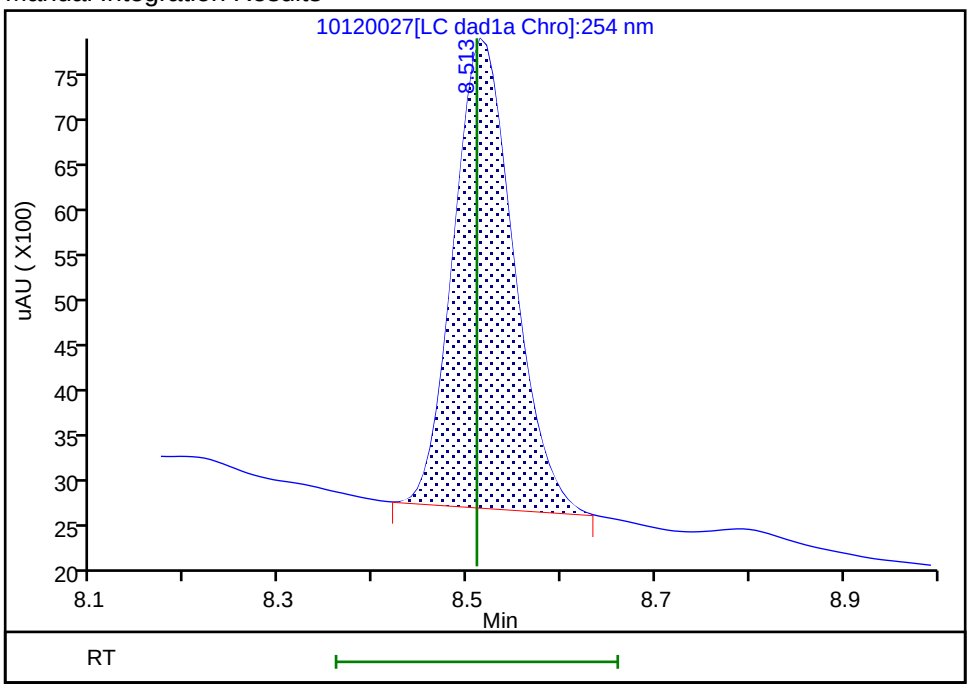
Processing Integration Results

RT: 8.51
Area: 25058
Amount: 0.202226
Amount Units: ug/mL



Manual Integration Results

RT: 8.51
Area: 22783
Amount: 0.183866
Amount Units: ug/mL



Reviewer: K8YG, 13-Oct-2023 08:18:08 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

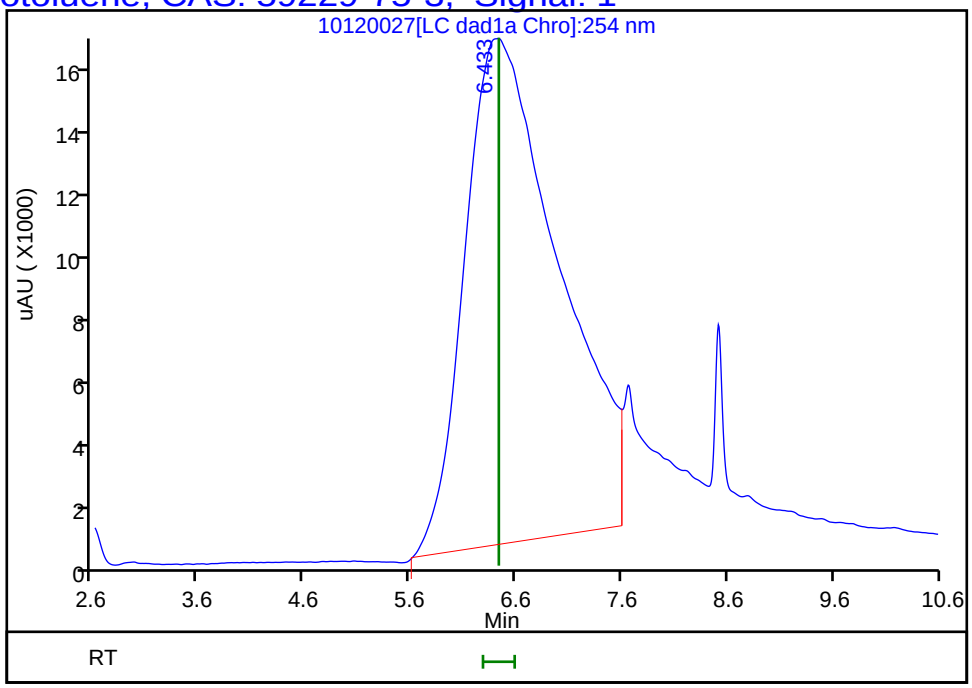
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120027.d				
Injection Date:	12-Oct-2023 20:13:20	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-10-A	Lab Sample ID:	280-182443-10		
Client ID:	FBQmw-175-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3, Signal: 1

RT: 6.43
Response: 985083
Amount: 4.367176



Reviewer: K8YG, 13-Oct-2023 12:21:23
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

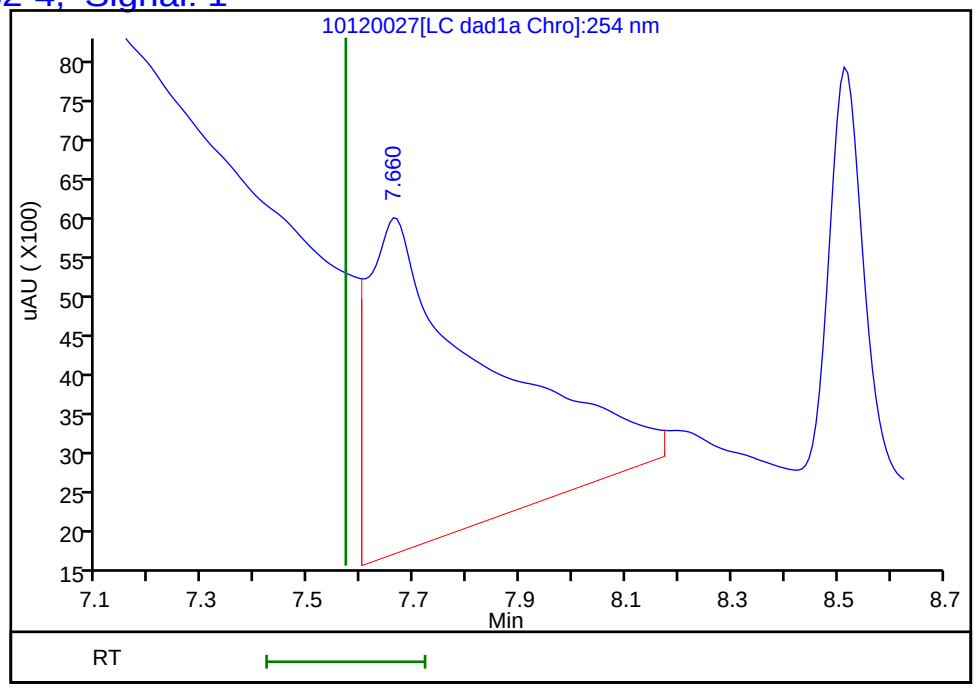
User Disabled Compound Report

Eurofins Denver

Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120027.d				
Injection Date:	12-Oct-2023 20:13:20	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-10-A	Lab Sample ID:	280-182443-10		
Client ID:	FBQmw-175-230901-GW				
Operator ID:	JZ/JG	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

8 RDX, CAS: 121-82-4, Signal: 1

RT: 7.66
Response: 65421
Amount: 0.592084



Reviewer: K8YG, 13-Oct-2023 08:18:11
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: FBQmw-175-230902-GW | Lab Sample ID: 280-182443-11

Matrix: Water | Lab File ID: 10120028.D

Analysis Method: 8330B | Date Collected: 10/04/2023 15:25

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 481.7(mL) | Date Analyzed: 10/12/2023 20:36

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.21	U	0.22	0.21	0.087
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.038
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.047
6629-29-4	2,4-diamino-6-nitrotoluene	0.93	U	1.0	0.93	0.45
121-14-2	2,4-Dinitrotoluene	0.083	U	0.10	0.083	0.028
59229-75-3	2,6-diamino-4-nitrotoluene	0.93	U M	1.0	0.93	0.23
606-20-2	2,6-Dinitrotoluene	0.083	U	0.10	0.083	0.042
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.053
88-72-2	2-Nitrotoluene	0.21	U	0.22	0.21	0.089
618-87-1	3,5-Dinitroaniline	0.31	U	0.42	0.31	0.14
99-08-1	3-Nitrotoluene	0.36	U	0.42	0.36	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.16	0.12	0.060
99-99-0	4-Nitrotoluene	0.42	U	0.43	0.42	0.10
80251-29-2	DNX	0.26	U	0.52	0.26	0.10
2691-41-0	HMX	0.21	U	0.22	0.21	0.091
5755-27-1	MNX	0.30	U	0.52	0.30	0.096
98-95-3	Nitrobenzene	0.21	U	0.22	0.21	0.094
55-63-0	Nitroglycerin	2.1	U	2.2	2.1	0.96
78-11-5	PETN	1.0	U	1.1	1.0	0.46
121-82-4	RDX	0.21	U M	0.22	0.21	0.053
479-45-8	Tetryl	0.10	U	0.11	0.10	0.033
13980-04-6	TNX	0.26	U	0.52	0.26	0.082

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97	M	83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120028.D
Lims ID: 280-182443-A-11-A
Client ID: FBQmw-175-230902-GW
Sample Type: Client
Inject. Date: 12-Oct-2023 20:36:16 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: 280-182443-A-11-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 12:21:32 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: K8YG Date: 13-Oct-2023 08:18:25

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/mL	Flags
	2 2,6-diamino-4-nitrotoluene	1		6.435			ND	U
	3 TNX	1		6.443			ND	
	4 HMX	1		6.570			ND	
	5 2,4-diamino-6-nitrotoluene	1		6.629			ND	
	6 DNX	1		6.770			ND	
	7 MNX	1		7.190			ND	
	8 RDX	1		7.570			ND	U
$	10 1,2-Dinitrobenzene	1	8.523	8.510	0.013	24142	0.1948	M
	11 1,3,5-Trinitrobenzene	1		8.637			ND	
	12 1,3-Dinitrobenzene	1		9.243			ND	
	13 Nitrobenzene	1		9.610			ND	
	14 3,5-Dinitroaniline	1		9.823			ND	
	15 Tetryl	1		9.956			ND	
	16 Nitroglycerin	2		10.403			ND	
	17 2,4,6-Trinitrotoluene	1		10.836			ND	
	18 4-Amino-2,6-dinitrotoluene	1		11.010			ND	
	19 2-Amino-4,6-dinitrotoluene	1		11.256			ND	
	20 2,6-Dinitrotoluene	1		11.416			ND	
	21 2,4-Dinitrotoluene	1		11.583			ND	
	22 o-Nitrotoluene	1		12.383			ND	
	23 p-Nitrotoluene	1		12.790			ND	
	24 m-Nitrotoluene	1		13.350			ND	
	25 PETN	2		14.463			ND	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
U - Marked Undetected

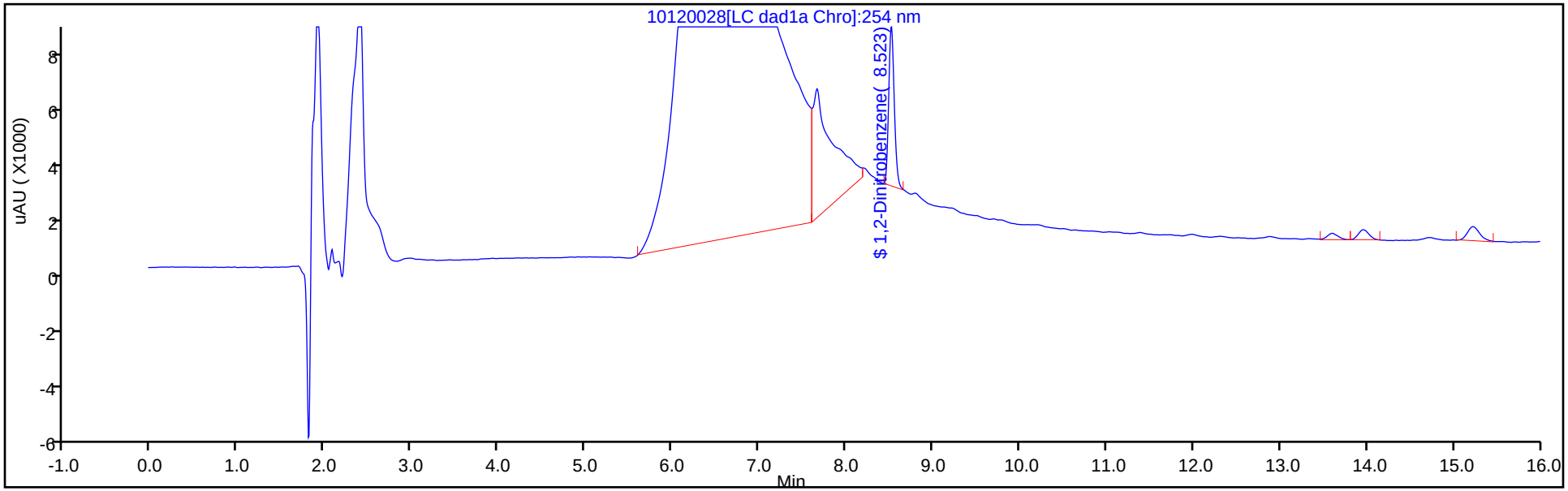
Report Date: 13-Oct-2023 12:21:33 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

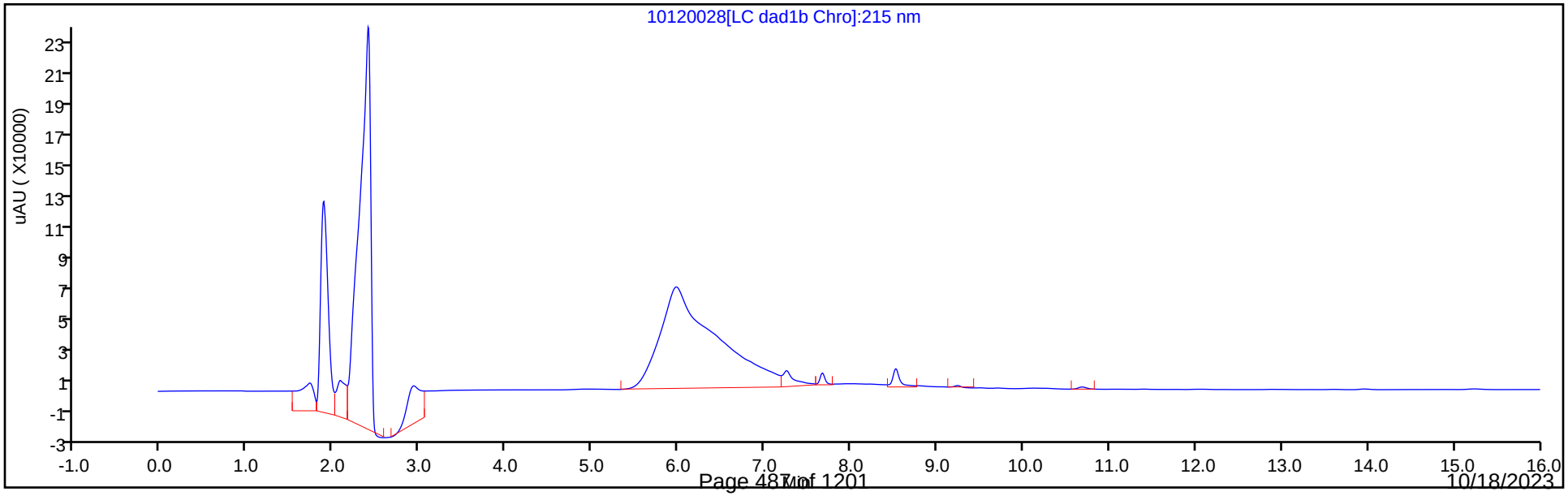
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120028.d

Injection Date:	12-Oct-2023 20:36:16	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	280-182443-A-11-A	Lab Sample ID:	280-182443-11	Worklist Smp#:	28
Client ID:	FBQmw-175-230902-GW				
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120028.D				
Lims ID:	280-182443-A-11-A				
Client ID:	FBQmw-175-230902-GW				
Sample Type:	Client				
Inject. Date:	12-Oct-2023 20:36:16	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-182443-A-11-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 12:21:32	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: K8YG Date: 13-Oct-2023 08:18:25

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1948	97.42

Manual Integration/User Assign Peak Report

Eurofins Denver

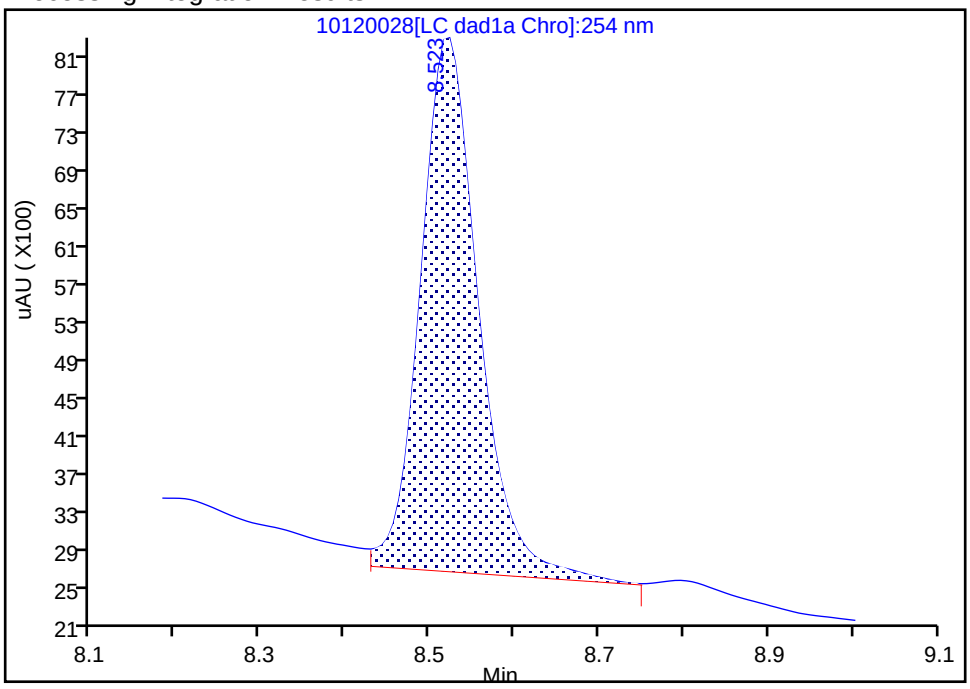
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120028.d				
Injection Date:	12-Oct-2023 20:36:16	Instrument ID:	CHHPLC_X3		
Lims ID:	280-182443-A-11-A	Lab Sample ID:	280-182443-11		
Client ID:	FBQmw-175-230902-GW				
Operator ID:	JZ/JG	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

$ 10 1,2-Dinitrobenzene, CAS: 528-29-0

Signal: 1

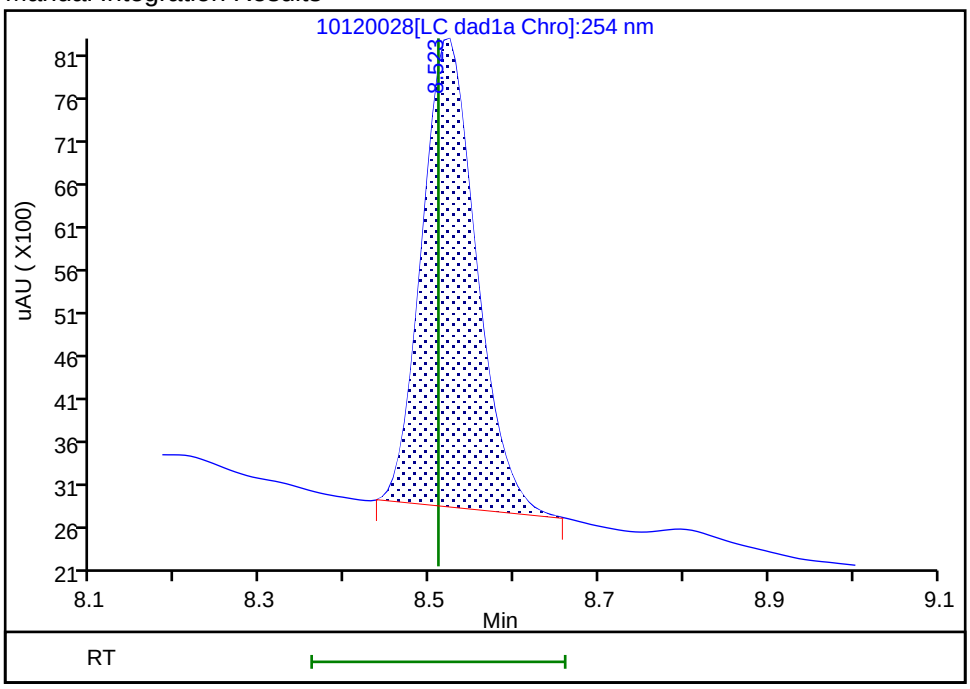
Processing Integration Results

RT: 8.52
Area: 26544
Amount: 0.214218
Amount Units: ug/mL



Manual Integration Results

RT: 8.52
Area: 24142
Amount: 0.194834
Amount Units: ug/mL



Reviewer: K8YG, 13-Oct-2023 08:18:19 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

User Disabled Compound Report

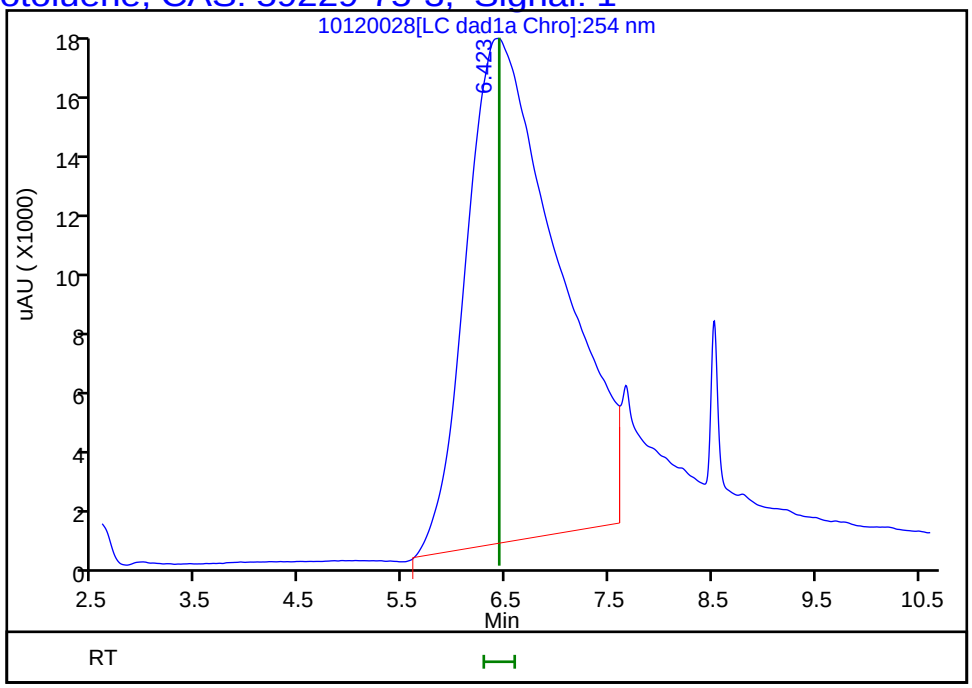
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120028.d
Injection Date: 12-Oct-2023 20:36:16 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-11-A Lab Sample ID: 280-182443-11
Client ID: FBQmw-175-230902-GW
Operator ID: JZ/JG ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3, Signal: 1

RT: 6.42
Response: 1027832
Amount: 4.556695



Reviewer: K8YG, 13-Oct-2023 12:21:32
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

User Disabled Compound Report

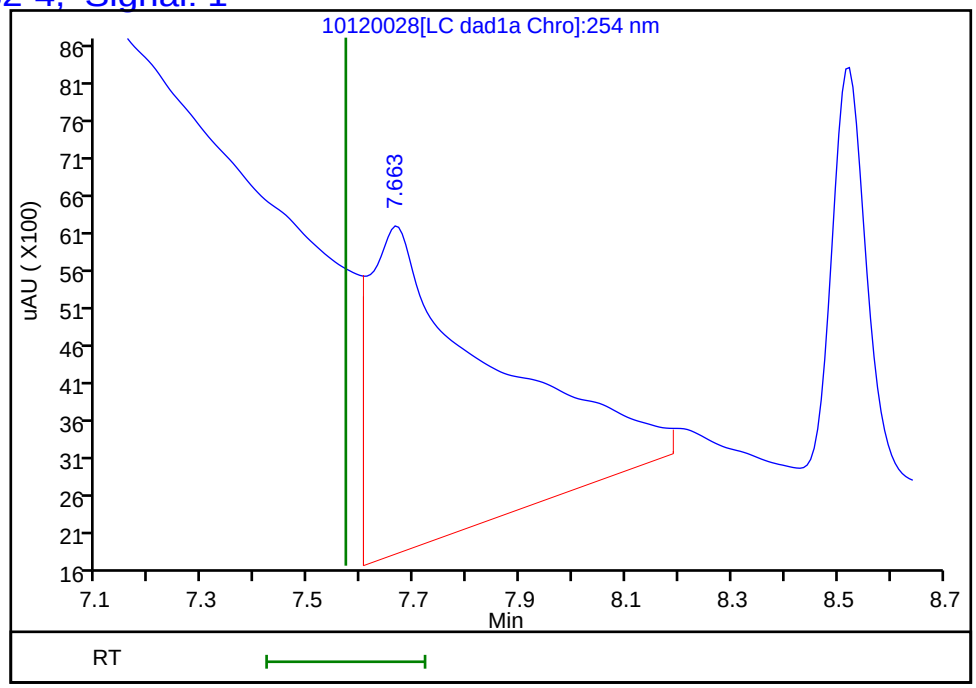
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120028.d
Injection Date: 12-Oct-2023 20:36:16 Instrument ID: CHHPLC_X3
Lims ID: 280-182443-A-11-A Lab Sample ID: 280-182443-11
Client ID: FBQmw-175-230902-GW
Operator ID: JZ/JG ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

8 RDX, CAS: 121-82-4, Signal: 1

RT: 7.66
Response: 70342
Amount: 0.636620



Reviewer: K8YG, 13-Oct-2023 08:18:25
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-182443-1 | Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 | Calibration End Date: 06/23/2023 20:57 | Calibration ID: 81926

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/19	06230019.D
Level 2	IC 280-617295/18	06230018.D
Level 3	IC 280-617295/17	06230017.D
Level 4	IC 280-617295/16	06230016.D
Level 5	IC 280-617295/15	06230015.D
Level 6	IC 280-617295/14	06230014.D
Level 7	IC 280-617295/13	06230013.D
Level 8	IC 280-617295/12	06230012.D
Level 9	IC 280-617295/11	06230011.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
TNX	6.474	6.473	6.472	6.470	6.478	6.474	6.466	6.470	6.463		6.370 - 6.570	6.471
HMX	6.601	6.593	6.598	6.597	6.598	6.600	6.593	6.597	6.590		6.447 - 6.747	6.596
DNX	6.801	6.799	6.798	6.803	6.805	6.807	6.800	6.797	6.797		6.703 - 6.903	6.801
MNX	7.241	7.233	7.232	7.237	7.238	7.240	7.233	7.230	7.223		7.087 - 7.387	7.234
RDX	7.627	7.619	7.625	7.623	7.625	7.627	7.626	7.623	7.617		7.473 - 7.773	7.624
Picric acid	8.041	8.026	8.032	8.030	8.025	8.020	8.006	7.997	7.957		7.880 - 8.180	8.015
1,3,5-Trinitrobenzene	8.714	8.699	8.712	8.710	8.711	8.714	8.713	8.710	8.703		8.560 - 8.860	8.710
1,3-Dinitrobenzene	9.334	9.326	9.338	9.336	9.338	9.340	9.340	9.343	9.330		9.186 - 9.486	9.336
Nitrobenzene	9.714	9.699	9.711	9.710	9.711	9.713	9.713	9.716	9.703		9.560 - 9.860	9.710
3,5-Dinitroaniline	9.941	9.932	9.945	9.943	9.945	9.947	9.953	9.950	9.936		9.793 - 10.093	9.944
Tetryl	10.081	10.066	10.085	10.083	10.085	10.087	10.093	10.096	10.083		9.933 - 10.233	10.084
Nitroglycerin	10.534	10.526	10.538	10.536	10.545	10.540	10.546	10.550	10.530		10.386 - 10.686	10.538
2,4,6-Trinitrotoluene	10.974	10.959	10.978	10.976	10.985	10.980	10.986	10.990	10.976		10.876 - 11.076	10.978
4-Amino-2,6-dinitrotoluene	11.174	11.159	11.178	11.170	11.178	11.180	11.180	11.190	11.170		11.070 - 11.270	11.175
2-Amino-4,6-dinitrotoluene	11.421	11.412	11.431	11.423	11.431	11.433	11.433	11.443	11.423		11.323 - 11.523	11.428
2,6-Dinitrotoluene	11.574	11.566	11.585	11.576	11.585	11.587	11.586	11.603	11.576		11.476 - 11.676	11.582
2,4-Dinitrotoluene	11.741	11.732	11.751	11.743	11.758	11.753	11.753	11.770	11.750		11.643 - 11.843	11.750
2-Nitrotoluene	12.567	12.559	12.585	12.570	12.585	12.587	12.580	12.603	12.576		12.420 - 12.720	12.579
4-Nitrotoluene	12.994	12.979	13.005	12.983	13.011	13.007	13.000	13.023	12.996		12.833 - 13.133	13.000
3-Nitrotoluene	13.554	13.552	13.578	13.556	13.585	13.580	13.573	13.603	13.576		13.406 - 13.706	13.573
PETN	14.721	14.719	14.751	14.723	14.765	14.760	14.746	14.790	14.763		14.573 - 14.873	14.749
1,2-Dinitrobenzene	8.594	8.579	8.585	8.590	8.591	8.594	8.593	8.590	8.583		8.440 - 8.740	8.589

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-182443-1 Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 Calibration End Date: 06/23/2023 20:57 Calibration ID: 81926

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/19	06230019.D
Level 2	IC 280-617295/18	06230018.D
Level 3	IC 280-617295/17	06230017.D
Level 4	IC 280-617295/16	06230016.D
Level 5	IC 280-617295/15	06230015.D
Level 6	IC 280-617295/14	06230014.D
Level 7	IC 280-617295/13	06230013.D
Level 8	IC 280-617295/12	06230012.D
Level 9	IC 280-617295/11	06230011.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	218345 199282 202810	194267 190950	198903 201995	199432 200863	Ave		200760.909				3.8		20.0			
HMX	104800 93284 93922	98000 89623	89920 93704	92010 93035	Ave		94255.3540				4.9		20.0			
DNX	141059 145443 150089	130869 142877	145834 149216	147113 147935	Ave		144492.787				4.1		20.0			
MNX	155184 135373 135234	135176 133762	139692 138336	138586 136855	Ave		138688.620				4.7		20.0			
RDX	122500 108156 107283	111700 106285	109440 107483	114570 107019	Ave		110492.851				4.7		20.0			
Picric acid	75600 77048 79416	72350 78670	79580 79549	79510 79045	Ave		77863.1079				3.2		20.0			
1,3,5-Trinitrobenzene	201900 220552 221605	204150 222658	216100 222134	216840 218769	Ave		216078.621				3.6		20.0			
1,3-Dinitrobenzene	290100 293424 298160	279950 295148	293680 295721	298900 295042	Ave		293347.214				1.9		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-182443-1 Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 Calibration End Date: 06/23/2023 20:57 Calibration ID: 81926

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Nitrobenzene	202000 190284 194953	186550 191388	191220 192774	193090 192007	Ave		192696.176				2.2		20.0			
3,5-Dinitroaniline	215100 223884 228641	213100 226128	223360 223811	224860 223593	Lin2	-127.03053	225169.737							1.0000		0.9900
Tetryl	154600 168428 171425	162400 169073	164640 172947	169610 172187	Ave		167256.605				3.5		20.0			
Nitroglycerin	60470 64467 66333	63410 67620	62508 65912	65270 65866	Ave		64650.6462				3.4		20.0			
2,4,6-Trinitrotoluene	191800 206336 208465	199050 207430	205380 208274	209070 208313	Ave		204902.054				2.8		20.0			
4-Amino-2,6-dinitrotoluene	146400 147684 149596	155550 149973	148620 149269	150580 148367	Ave		149559.741				1.7		20.0			
2-Amino-4,6-dinitrotoluene	195000 192472 199138	193150 192890	192080 191494	193020 194204	Ave		193716.432				1.2		20.0			
2,6-Dinitrotoluene	137300 142012 139214	145800 143420	143200 144666	144950 143182	Ave		142638.190				1.9		20.0			
2,4-Dinitrotoluene	294100 292196 301304	291450 296063	296000 297416	298110 294715	Ave		295705.957				1.0		20.0			
2-Nitrotoluene	129100 123032 125800	127800 124178	128060 124377	129120 123644	Ave		126123.360				1.9		20.0			
4-Nitrotoluene	116500 104936 107763	120200 106565	110860 107116	110570 106286	Ave		110088.390				4.7		20.0			
3-Nitrotoluene	187000 135416 138231	167050 136003	145640 136367	140010 135553	Lin2	535.002088	135553.140							1.0000		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-182443-1 Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 Calibration End Date: 06/23/2023 20:57 Calibration ID: 81926

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
PETN	73280 71671 73155	68185 72517	71842 72738	72200 72573	Ave		72017.9754				2.1		20.0			
1,2-Dinitrobenzene	117200 124272 124483	118950 125155	125000 125046	127830 127262	Ave		123910.879				2.9		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-182443-1 | Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 | Calibration End Date: 06/23/2023 20:57 | Calibration ID: 81926

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/19	06230019.D
Level 2	IC 280-617295/18	06230018.D
Level 3	IC 280-617295/17	06230017.D
Level 4	IC 280-617295/16	06230016.D
Level 5	IC 280-617295/15	06230015.D
Level 6	IC 280-617295/14	06230014.D
Level 7	IC 280-617295/13	06230013.D
Level 8	IC 280-617295/12	06230012.D
Level 9	IC 280-617295/11	06230011.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
TNX	Ave	2190 76609	3897 141821	9975 201466	20003 508547	49970	0.0100 0.401	0.0201 0.702	0.0502 1.00	0.100 2.51	0.251
HMX	Ave	1048 35849	1960 65593	4496 93035	9201 234806	23321	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
DNX	Ave	1412 57208	2620 104556	7299 148083	14726 375597	36397	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
MNX	Ave	1811 62440	3155 113007	8151 159710	16173 394545	39495	0.0117 0.467	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292
RDX	Ave	1225 42514	2234 75238	5472 107019	11457 268207	27039	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Picric acid	Ave	756 31468	1447 55684	3979 79045	7951 198541	19262	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3,5-Trinitrobenzene	Ave	2019 89063	4083 155494	10805 218769	21684 554012	55138	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	2901 118059	5599 207005	14684 295042	29890 745400	73356	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	2020 76555	3731 134942	9561 192007	19309 487382	47571	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	2151 90451	4262 156668	11168 223593	22486 571603	55971	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	1546 67629	3248 121063	8232 172187	16961 428562	42107	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	6047 270481	12682 461386	31254 658658	65270 1658317	161167	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2,4,6-Trinitrotoluene	Ave	1918 82972	3981 145792	10269 208313	20907 521163	51584	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	1464 59989	3111 104488	7431 148367	15058 373989	36921	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	1950	3863	9604	19302	48118	0.0100	0.0200	0.0500	0.100	0.250

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-182443-1 | Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 17:53 | Calibration End Date: 06/23/2023 20:57 | Calibration ID: 81926

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
		77156	134046	194204	497844		0.400	0.700	1.00	2.50	
2,6-Dinitrotoluene	Ave	1373 57368	2916 101266	7160 143182	14495 348035	35503	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	2941 118425	5829 208191	14800 294715	29811 753261	73049	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Nitrotoluene	Ave	1291 49671	2556 87064	6403 123644	12912 314499	30758	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	1165 42626	2404 74981	5543 106286	11057 269407	26234	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Lin2	1870 54401	3341 95457	7282 135553	14001 345577	33854	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Ave	7328 290067	13637 509169	35921 725734	72200 1828875	179178	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	1172 50062	2379 87532	6250 127262	12783 311208	31068	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230011.D
Lims ID: IC INT/DMT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 23-Jun-2023 17:53:55 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 9
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:47 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 18:20:21

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.463	6.470	-0.007	508547	2.51	2.53	Ma
4 HMX	1	6.590	6.597	-0.007	234806	2.50	2.49	M
6 DNX	1	6.797	6.803	-0.006	375597	2.50	2.60	M
7 MNX	1	7.223	7.237	-0.014	394545	2.92	2.84	M
8 RDX	1	7.617	7.623	-0.006	268207	2.50	2.43	
9 2,4,6-Trinitrophenol	1	7.957	8.030	-0.073	198541	2.50	2.55	
$ 10 1,2-Dinitrobenzene	1	8.583	8.590	-0.007	311208	2.50	2.51	
11 1,3,5-Trinitrobenzene	1	8.703	8.710	-0.007	554012	2.50	2.56	
12 1,3-Dinitrobenzene	1	9.330	9.336	-0.006	745400	2.50	2.54	
13 Nitrobenzene	1	9.703	9.710	-0.007	487382	2.50	2.53	
14 3,5-Dinitroaniline	1	9.936	9.943	-0.007	571603	2.50	2.54	
15 Tetryl	1	10.083	10.083	0.000	428562	2.50	2.56	
16 Nitroglycerin	2	10.530	10.536	-0.006	1658317	25.0	25.7	
17 2,4,6-Trinitrotoluene	1	10.976	10.976	0.000	521163	2.50	2.54	
18 4-Amino-2,6-dinitrotoluene	1	11.170	11.170	0.000	373989	2.50	2.50	
19 2-Amino-4,6-dinitrotoluene	1	11.423	11.423	0.000	497844	2.50	2.57	
20 2,6-Dinitrotoluene	1	11.576	11.576	0.000	348035	2.50	2.44	
21 2,4-Dinitrotoluene	1	11.750	11.743	0.007	753261	2.50	2.55	
22 o-Nitrotoluene	1	12.576	12.570	0.006	314499	2.50	2.49	
23 p-Nitrotoluene	1	12.996	12.983	0.013	269407	2.50	2.45	
24 m-Nitrotoluene	1	13.576	13.556	0.020	345577	2.50	2.55	
25 PETN	2	14.763	14.723	0.040	1828875	25.0	25.4	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00077	Amount Added: 250.00	Units: uL
8330 DMT_00013	Amount Added: 125.00	Units: uL

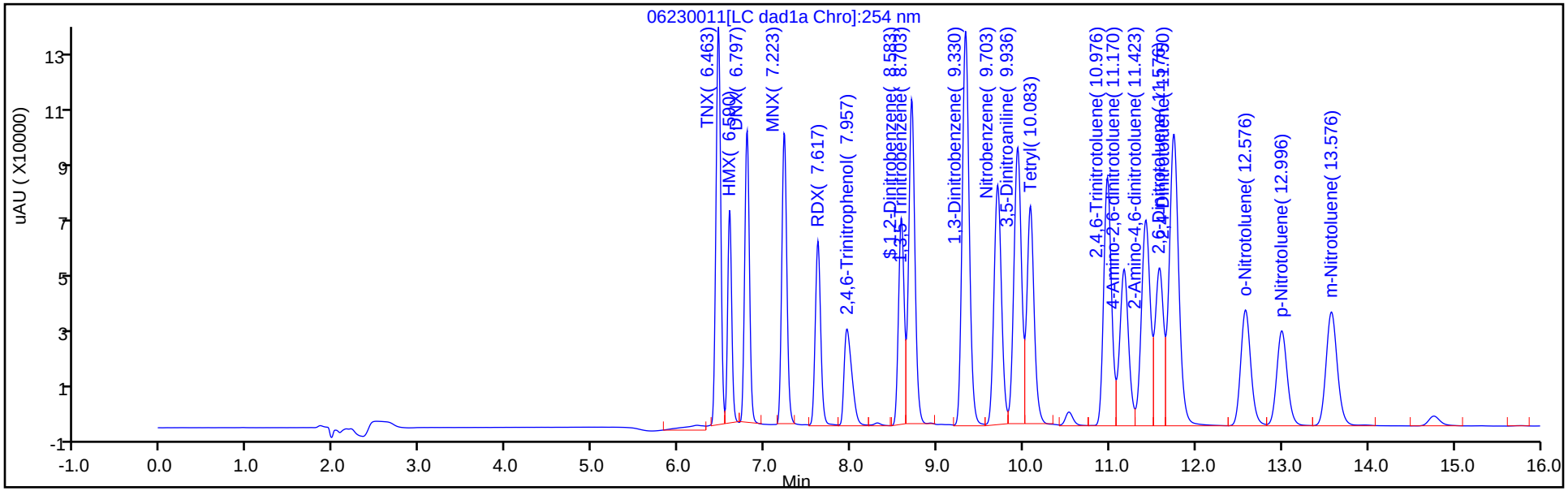
Report Date: 24-Jun-2023 12:55:47 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

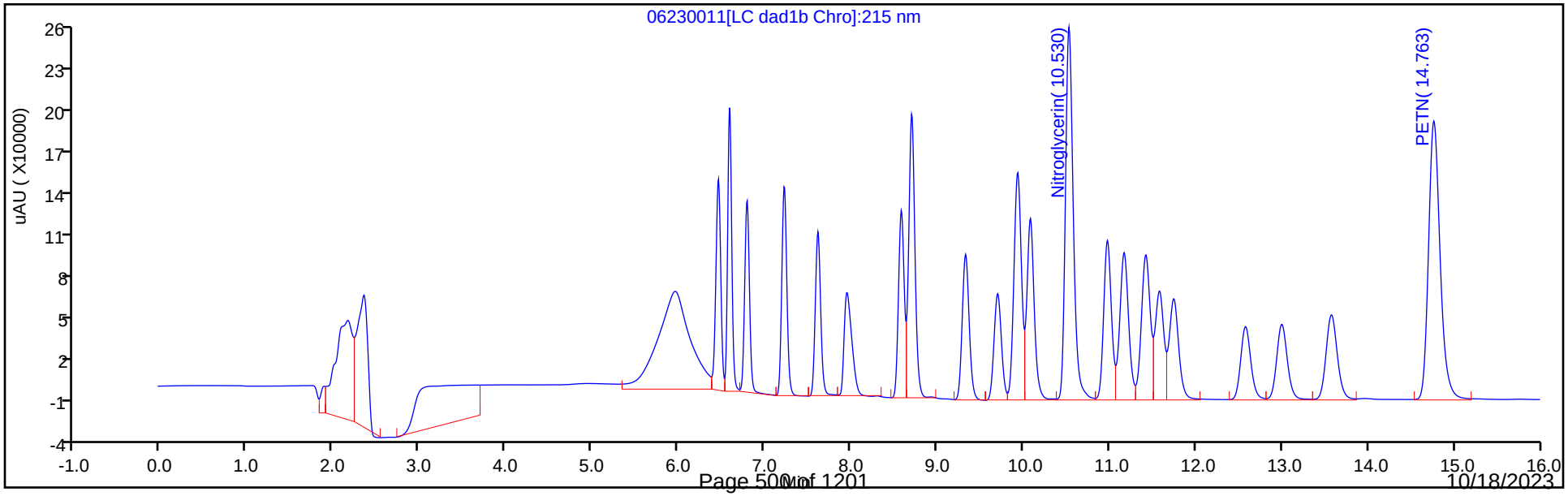
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230011.d

Injection Date:	23-Jun-2023 17:53:55	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 9			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

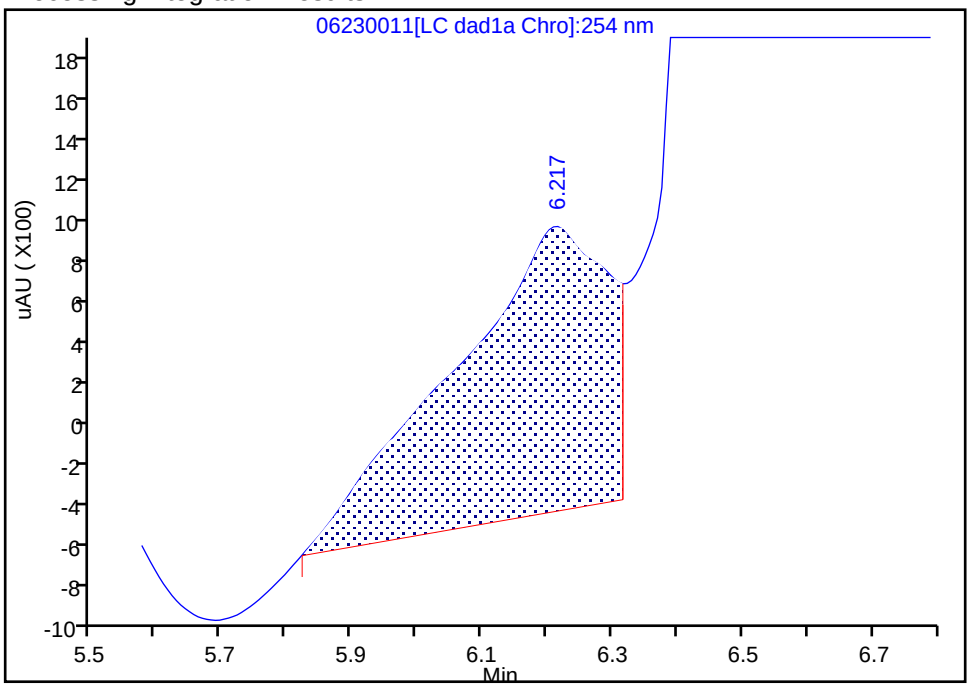
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230011.d				
Injection Date:	23-Jun-2023 17:53:55	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

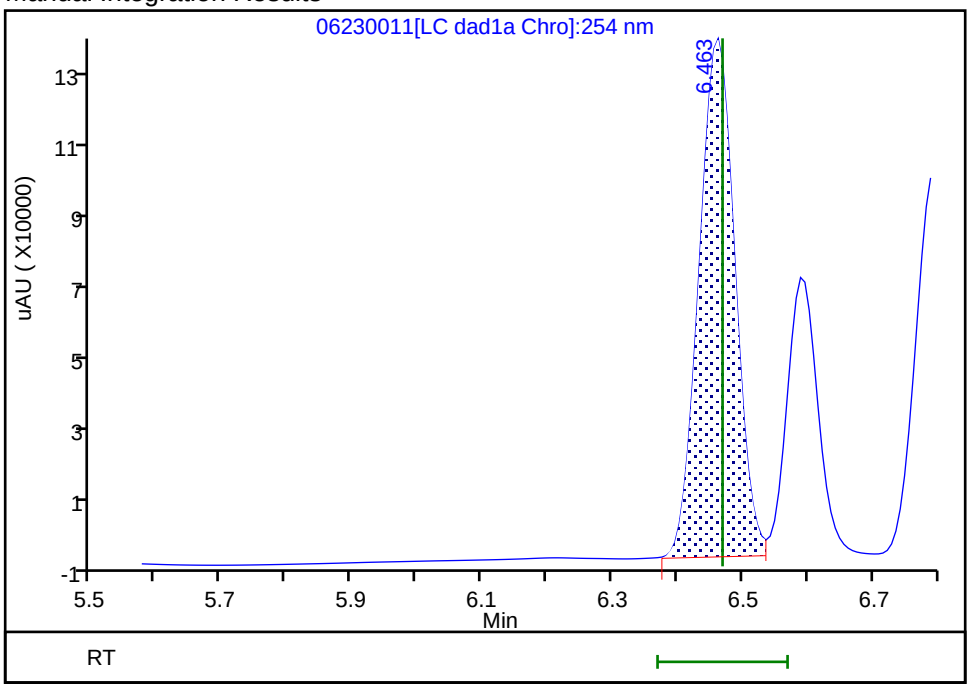
Processing Integration Results

RT: 6.22
Area: 22780
Amount: 0.128896
Amount Units: ug/mL



Manual Integration Results

RT: 6.46
Area: 508547
Amount: 2.533098
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:20:12 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

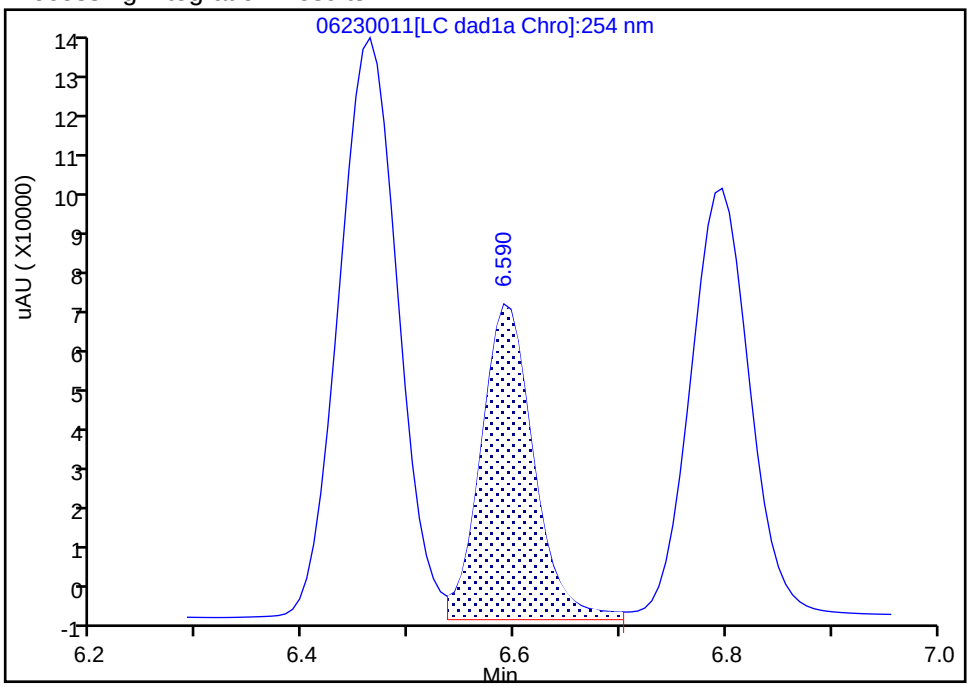
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230011.d
Injection Date: 23-Jun-2023 17:53:55 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 9
Client ID:
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

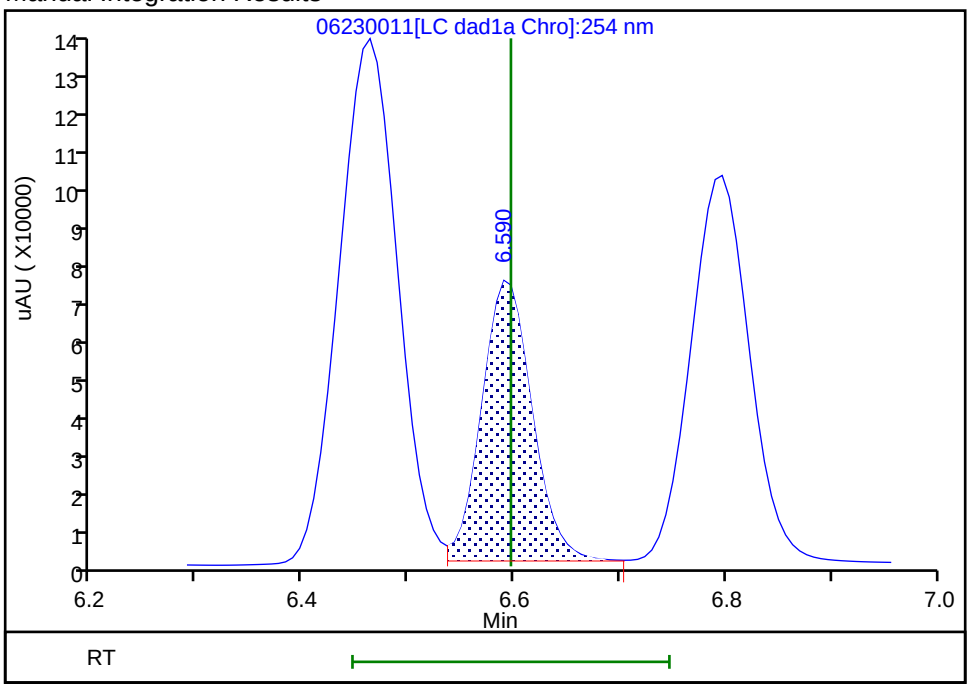
Processing Integration Results

RT: 6.59
Area: 250801
Amount: 2.654489
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 234806
Amount: 2.491169
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:20:04 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

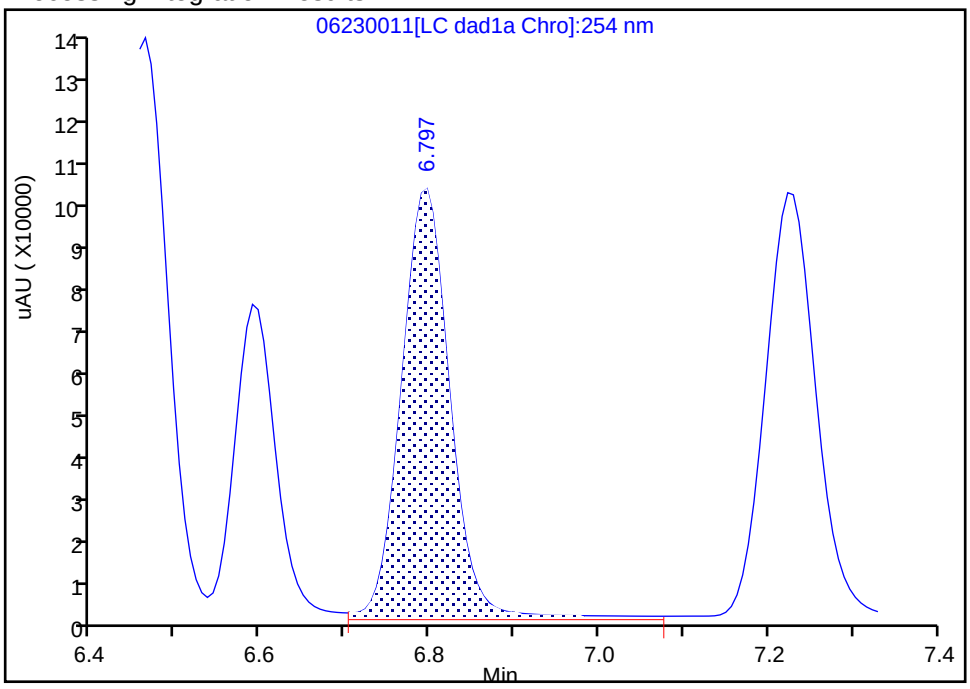
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230011.d				
Injection Date:	23-Jun-2023 17:53:55	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

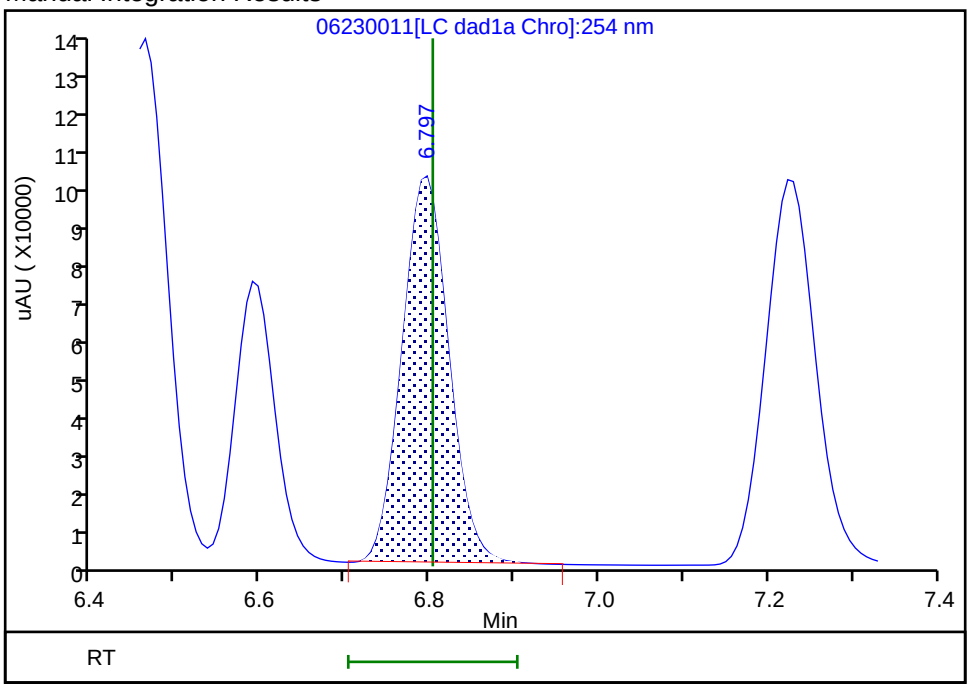
Processing Integration Results

RT: 6.80
Area: 401390
Amount: 2.744869
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 375597
Amount: 2.599417
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:19:56 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

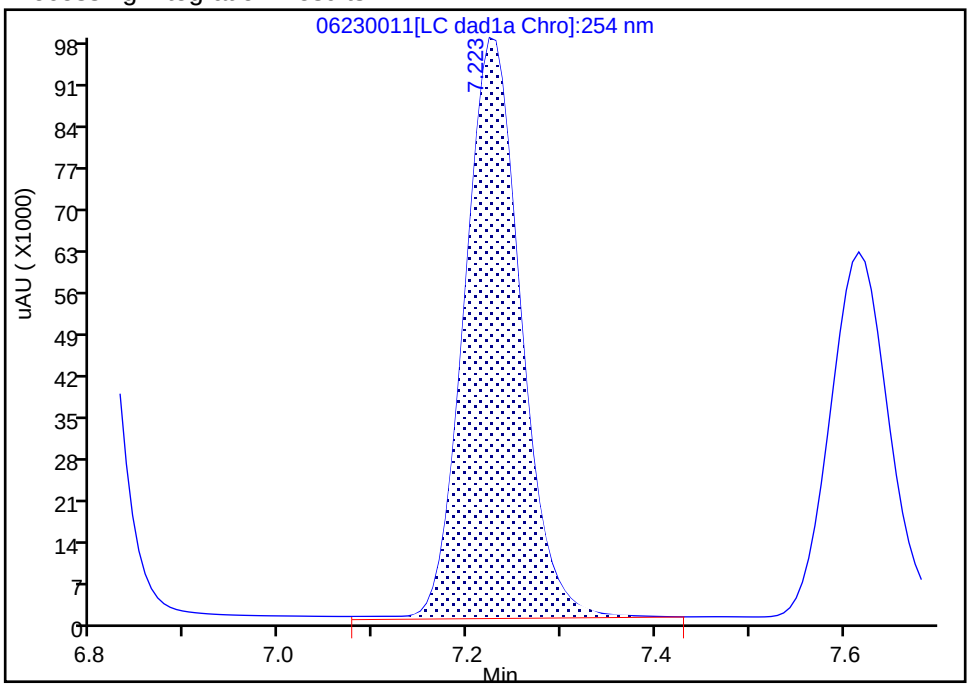
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230011.d				
Injection Date:	23-Jun-2023 17:53:55	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

7 MNX, CAS: 5755-27-1

Signal: 1

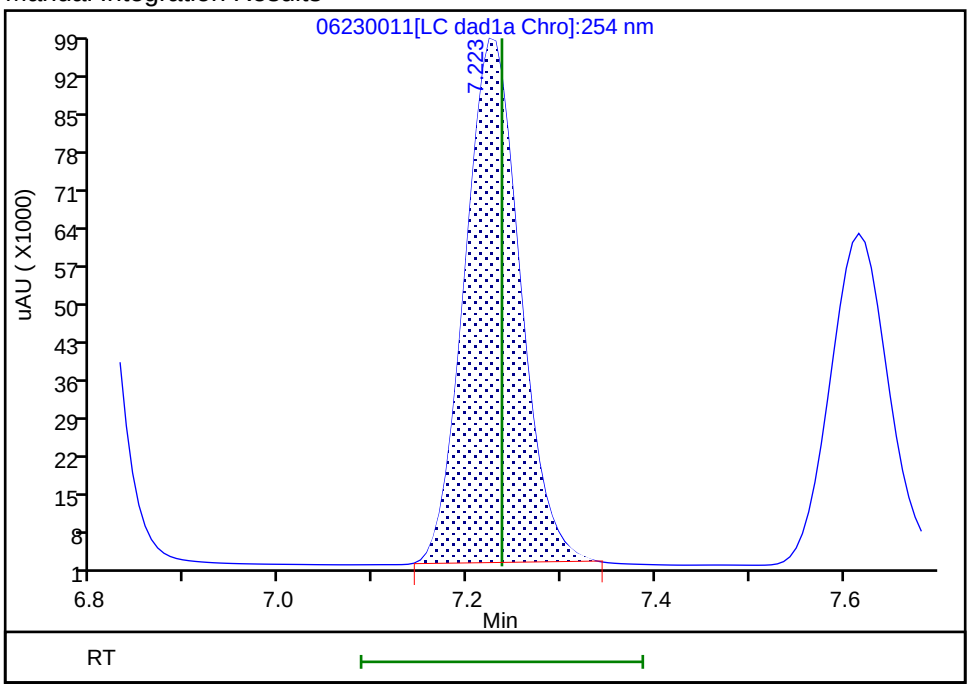
Processing Integration Results

RT: 7.22
Area: 409944
Amount: 3.100717
Amount Units: ug/mL



Manual Integration Results

RT: 7.22
Area: 394545
Amount: 2.844826
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:20:19 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230012.D
Lims ID: IC INT/DMT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 23-Jun-2023 18:16:50 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 8
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:48 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 18:54:16

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.470	6.470	0.000	201466	1.00	1.00	M
4 HMX	1	6.597	6.597	0.000	93035	1.00	0.9871	M
6 DNX	1	6.797	6.803	-0.006	148083	1.00	1.02	M
7 MNX	1	7.230	7.237	-0.007	159710	1.17	1.15	
8 RDX	1	7.623	7.623	0.000	107019	1.00	0.9686	
9 2,4,6-Trinitrophenol	1	7.997	8.030	-0.033	79045	1.00	1.02	
$ 10 1,2-Dinitrobenzene	1	8.590	8.590	0.000	127262	1.00	1.03	
11 1,3,5-Trinitrobenzene	1	8.710	8.710	0.000	218769	1.00	1.01	
12 1,3-Dinitrobenzene	1	9.343	9.336	0.007	295042	1.00	1.01	
13 Nitrobenzene	1	9.716	9.710	0.006	192007	1.00	1.00	
14 3,5-Dinitroaniline	1	9.950	9.943	0.007	223593	1.00	0.99	
15 Tetryl	1	10.096	10.083	0.013	172187	1.00	1.03	
16 Nitroglycerin	2	10.550	10.536	0.014	658658	10.0	10.2	
17 2,4,6-Trinitrotoluene	1	10.990	10.976	0.014	208313	1.00	1.02	
18 4-Amino-2,6-dinitrotoluene	1	11.190	11.170	0.020	148367	1.00	0.99	
19 2-Amino-4,6-dinitrotoluene	1	11.443	11.423	0.020	194204	1.00	1.00	
20 2,6-Dinitrotoluene	1	11.603	11.576	0.027	143182	1.00	1.00	
21 2,4-Dinitrotoluene	1	11.770	11.743	0.027	294715	1.00	1.00	
22 o-Nitrotoluene	1	12.603	12.570	0.033	123644	1.00	0.9803	
23 p-Nitrotoluene	1	13.023	12.983	0.040	106286	1.00	0.9655	
24 m-Nitrotoluene	1	13.603	13.556	0.047	135553	1.00	1.00	
25 PETN	2	14.790	14.723	0.067	725734	10.0	10.1	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00013	Amount Added: 50.00	Units: uL
8330IntermStk_00077	Amount Added: 100.00	Units: uL

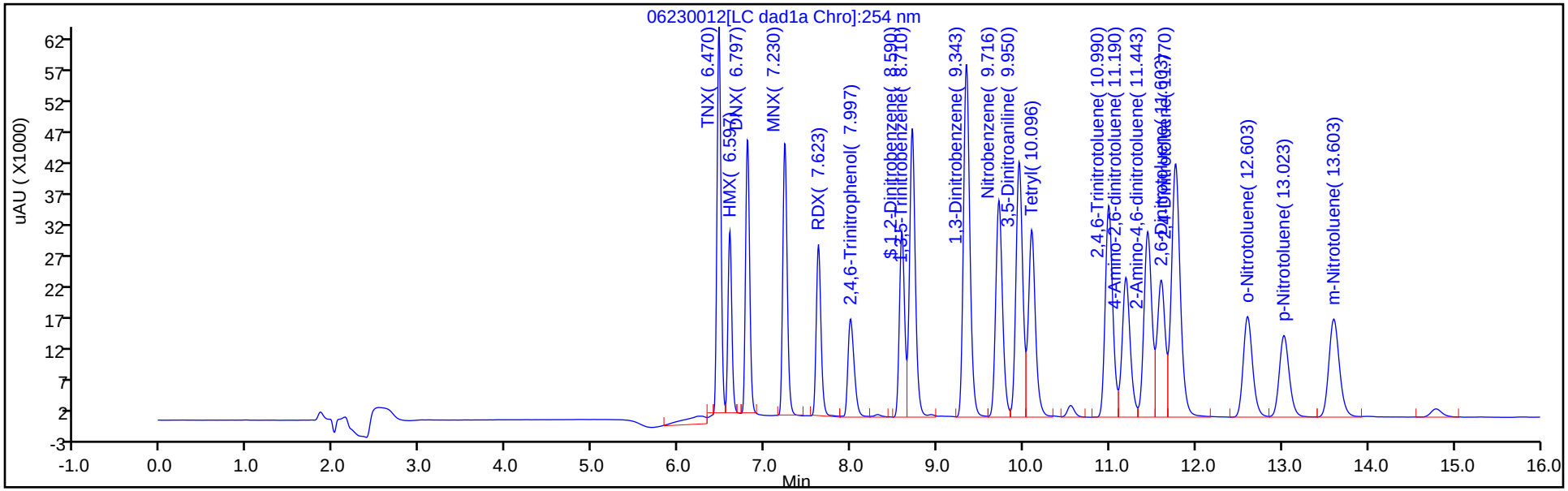
Report Date: 24-Jun-2023 12:55:48 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

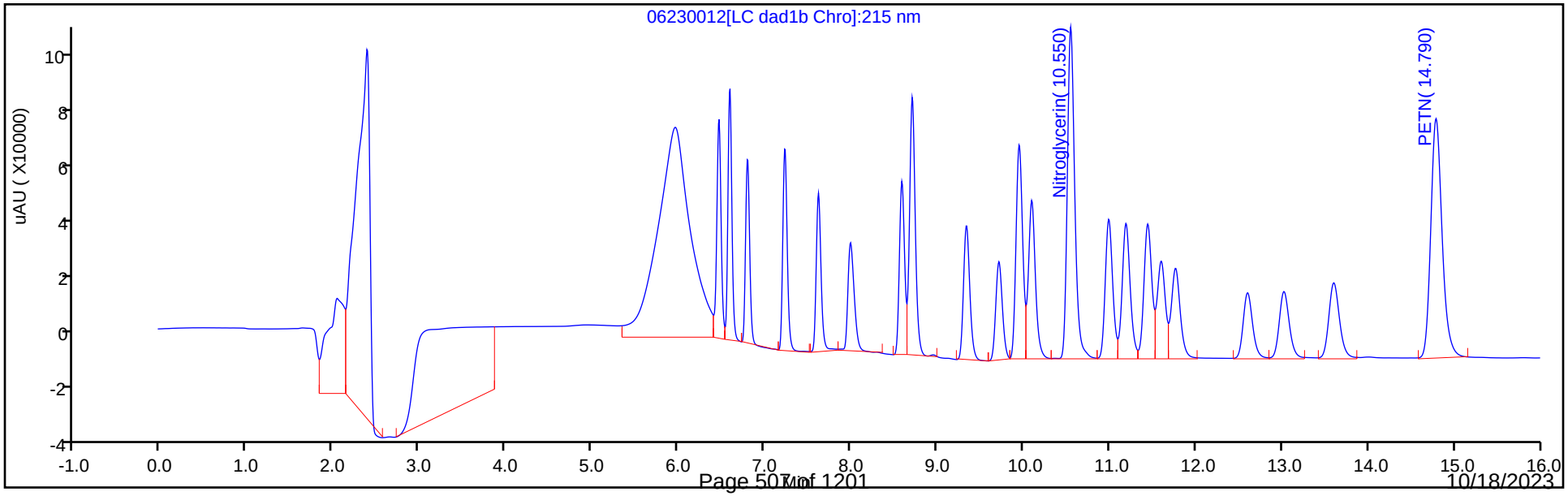
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230012.d

Injection Date:	23-Jun-2023 18:16:50	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 8			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

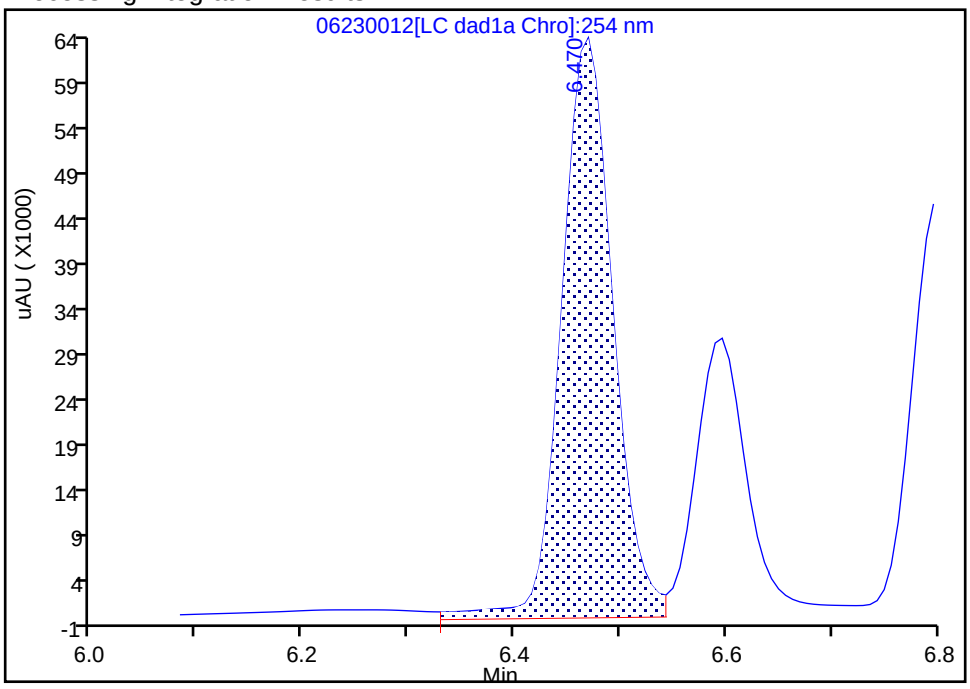
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230012.d				
Injection Date:	23-Jun-2023 18:16:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

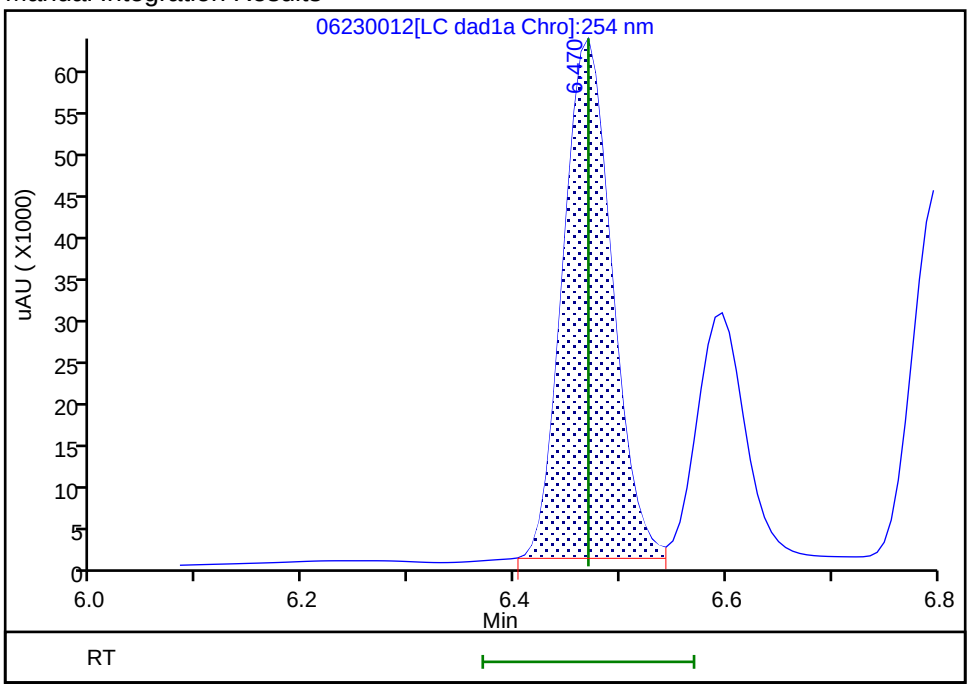
Processing Integration Results

RT: 6.47
Area: 216616
Amount: 1.084797
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 201466
Amount: 1.003512
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:54:07 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

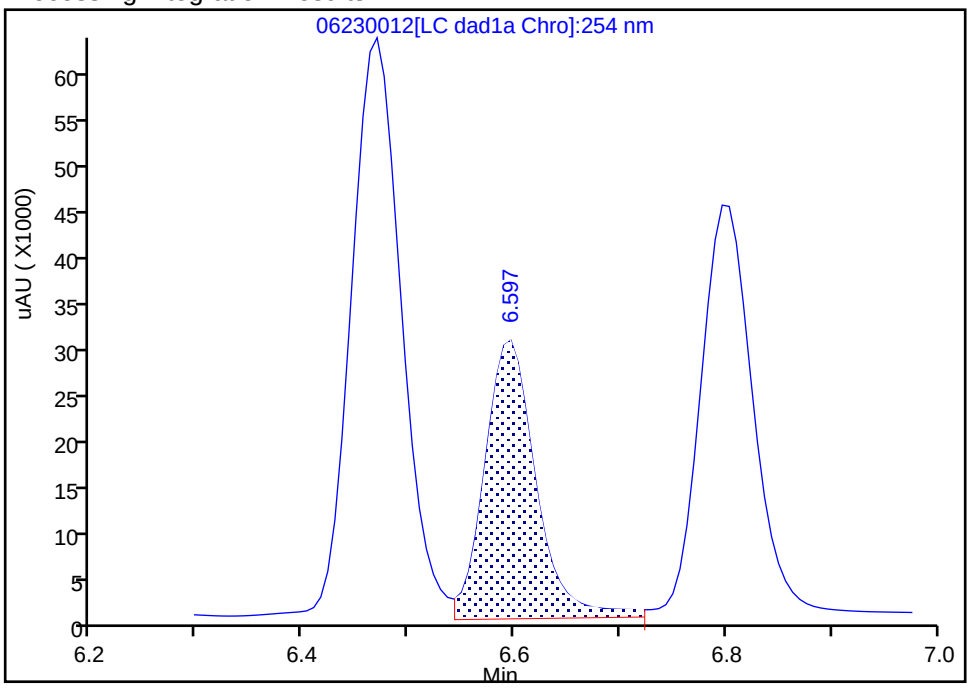
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230012.d				
Injection Date:	23-Jun-2023 18:16:50	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

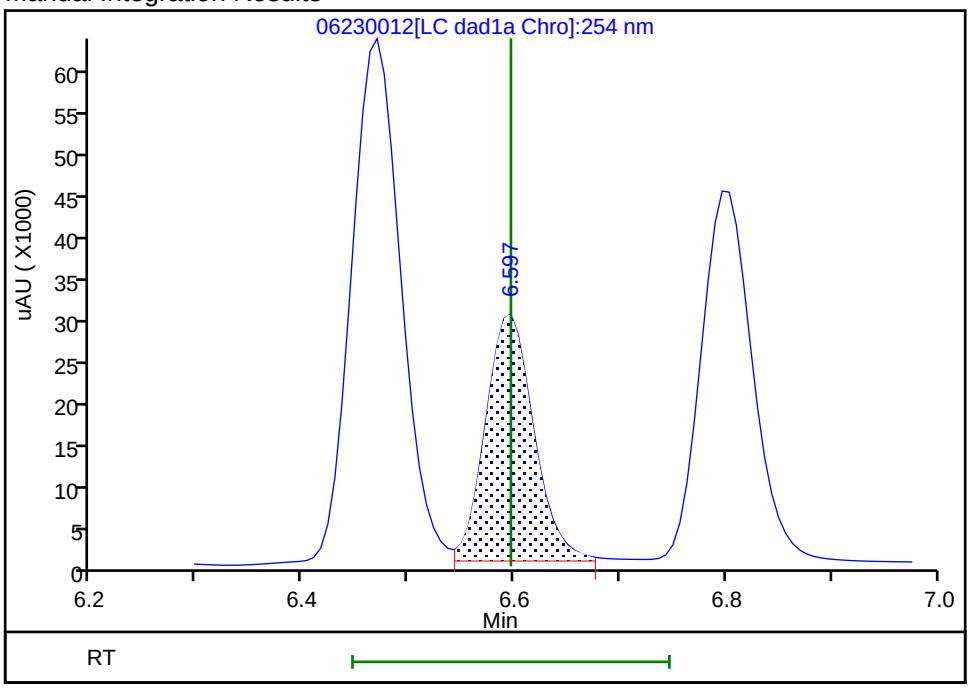
Processing Integration Results

RT: 6.60
Area: 103827
Amount: 1.091337
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 93035
Amount: 0.987053
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:54:08 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

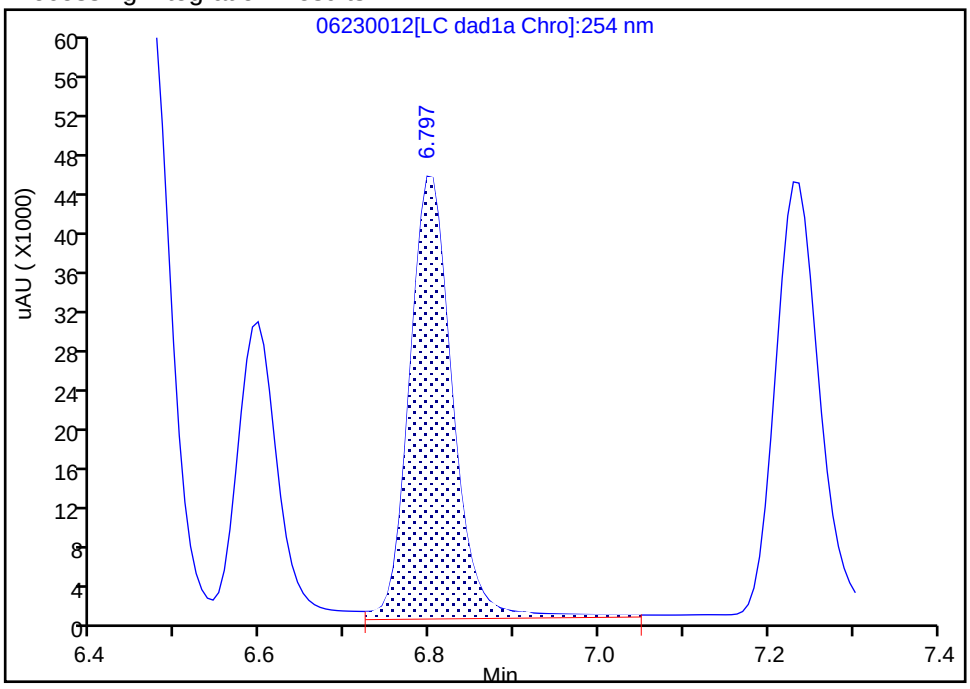
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230012.d
Injection Date: 23-Jun-2023 18:16:50 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 8
Client ID:
Operator ID: JZ/JG ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

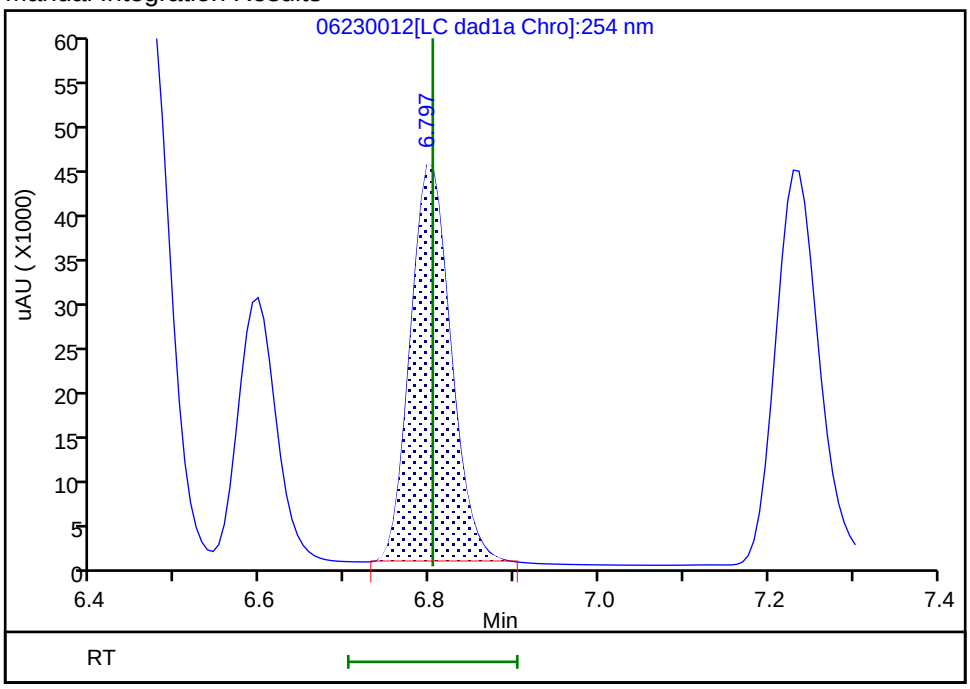
Processing Integration Results

RT: 6.80
Area: 160299
Amount: 1.093419
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 148083
Amount: 1.024847
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 18:54:10 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230013.D
Lims ID: IC INT/DMT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 23-Jun-2023 18:39:49 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 7
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:48 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 19:10:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.466	6.470	-0.004	141821	0.7021	0.7064	M
4 HMX	1	6.593	6.597	-0.004	65593	0.7000	0.6959	M
6 DNX	1	6.800	6.803	-0.003	104556	0.7007	0.7236	M
7 MNX	1	7.233	7.237	-0.004	113007	0.8169	0.8148	
8 RDX	1	7.626	7.623	0.003	75238	0.7000	0.6809	
9 2,4,6-Trinitrophenol	1	8.006	8.030	-0.024	55684	0.7000	0.7152	
$ 10 1,2-Dinitrobenzene	1	8.593	8.590	0.003	87532	0.7000	0.7064	
11 1,3,5-Trinitrobenzene	1	8.713	8.710	0.003	155494	0.7000	0.7196	
12 1,3-Dinitrobenzene	1	9.340	9.336	0.004	207005	0.7000	0.7057	
13 Nitrobenzene	1	9.713	9.710	0.003	134942	0.7000	0.7003	
14 3,5-Dinitroaniline	1	9.953	9.943	0.010	156668	0.7000	0.6963	
15 Tetryl	1	10.093	10.083	0.010	121063	0.7000	0.7238	
16 Nitroglycerin	2	10.546	10.536	0.010	461386	7.00	7.14	
17 2,4,6-Trinitrotoluene	1	10.986	10.976	0.010	145792	0.7000	0.7115	
18 4-Amino-2,6-dinitrotoluene	1	11.180	11.170	0.010	104488	0.7000	0.6986	
19 2-Amino-4,6-dinitrotoluene	1	11.433	11.423	0.010	134046	0.7000	0.6920	
20 2,6-Dinitrotoluene	1	11.586	11.576	0.010	101266	0.7000	0.7100	
21 2,4-Dinitrotoluene	1	11.753	11.743	0.010	208191	0.7000	0.7040	
22 o-Nitrotoluene	1	12.580	12.570	0.010	87064	0.7000	0.6903	
23 p-Nitrotoluene	1	13.000	12.983	0.017	74981	0.7000	0.6811	
24 m-Nitrotoluene	1	13.573	13.556	0.017	95457	0.7000	0.7003	
25 PETN	2	14.746	14.723	0.023	509169	7.00	7.07	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00013	Amount Added:	35.00	Units: uL
8330IntermStk_00077	Amount Added:	70.00	Units: uL

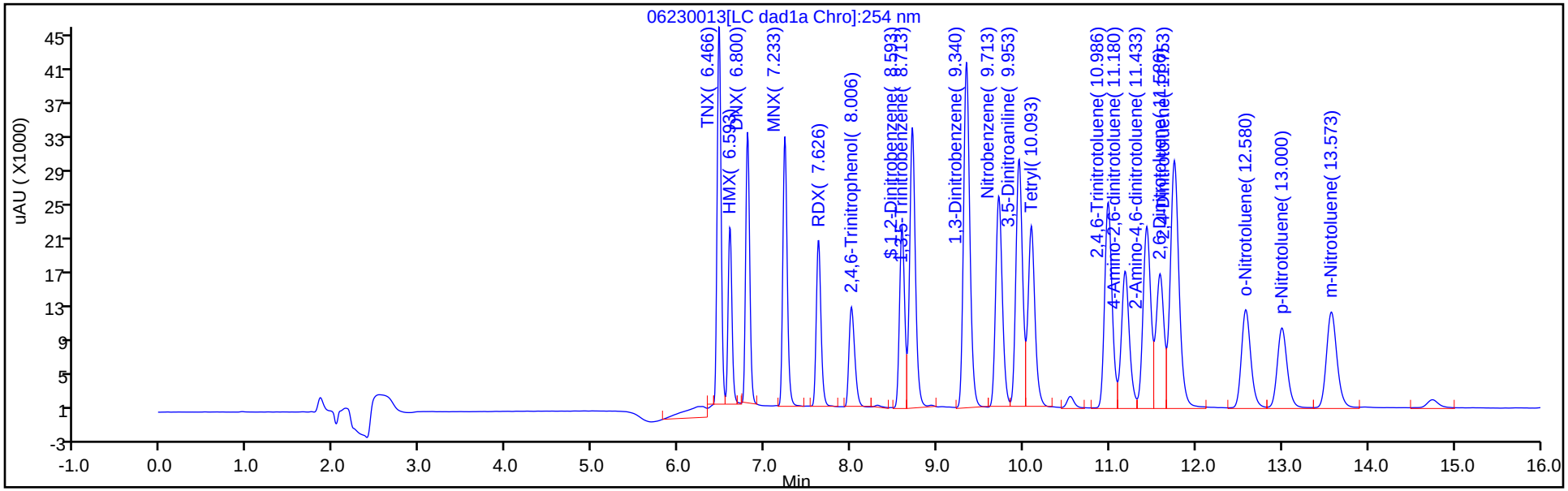
Report Date: 24-Jun-2023 12:55:48 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

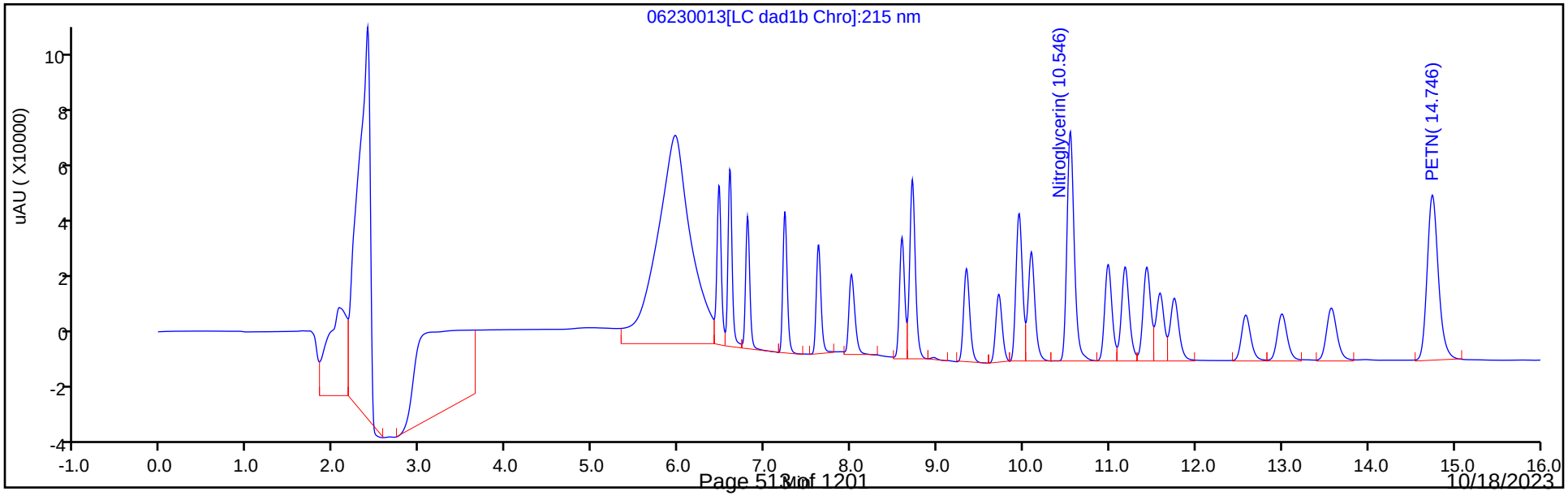
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230013.d

Injection Date:	23-Jun-2023 18:39:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 7			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

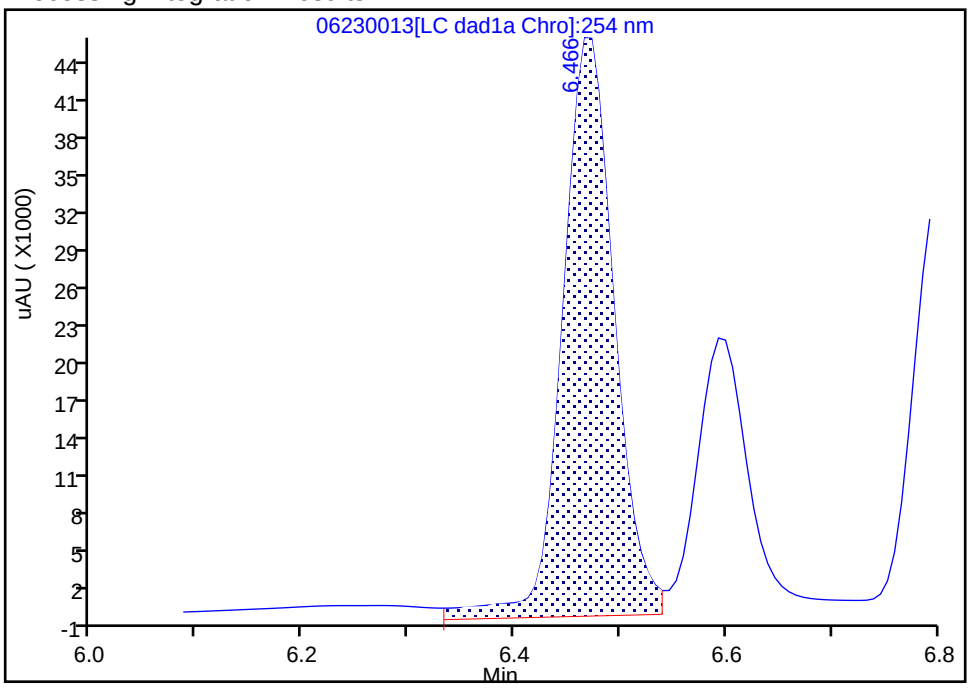
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230013.d				
Injection Date:	23-Jun-2023 18:39:49	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

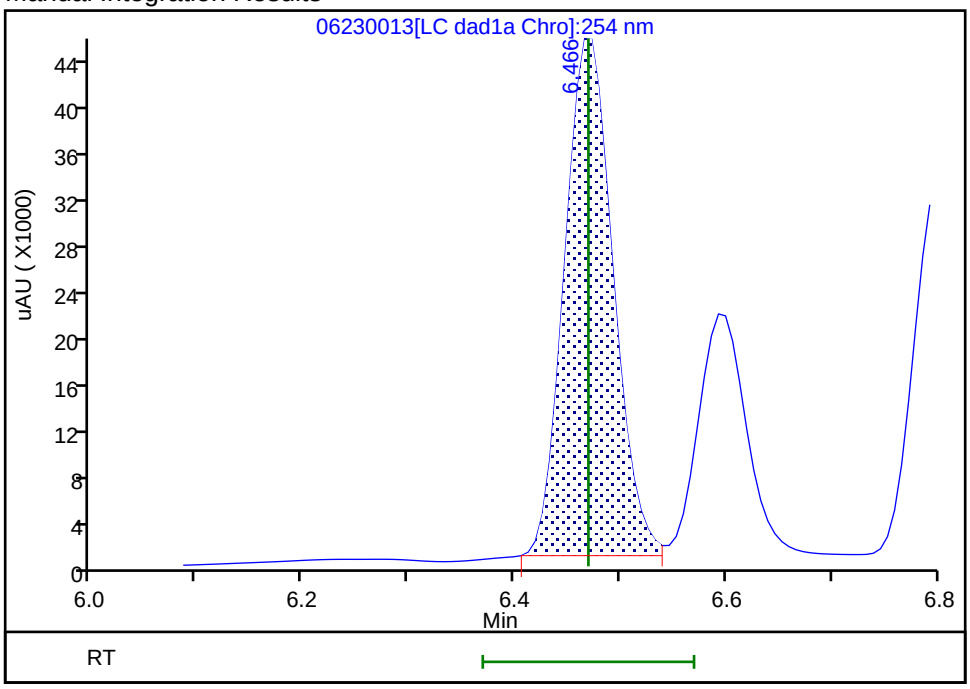
Processing Integration Results

RT: 6.47
Area: 155955
Amount: 0.779468
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 141821
Amount: 0.706417
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:10:12 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

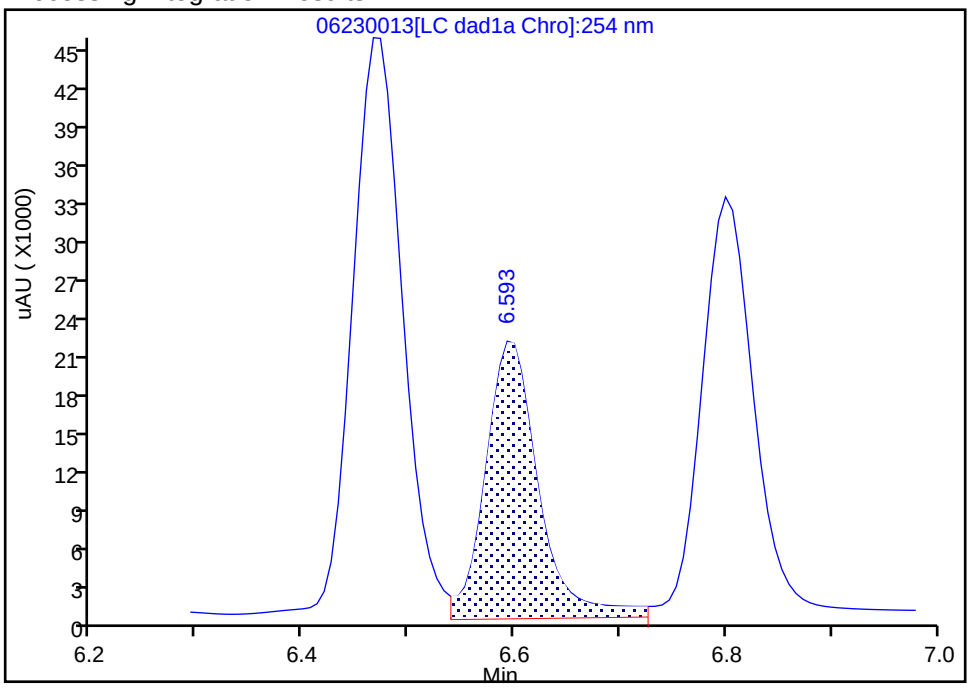
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230013.d				
Injection Date:	23-Jun-2023 18:39:49	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

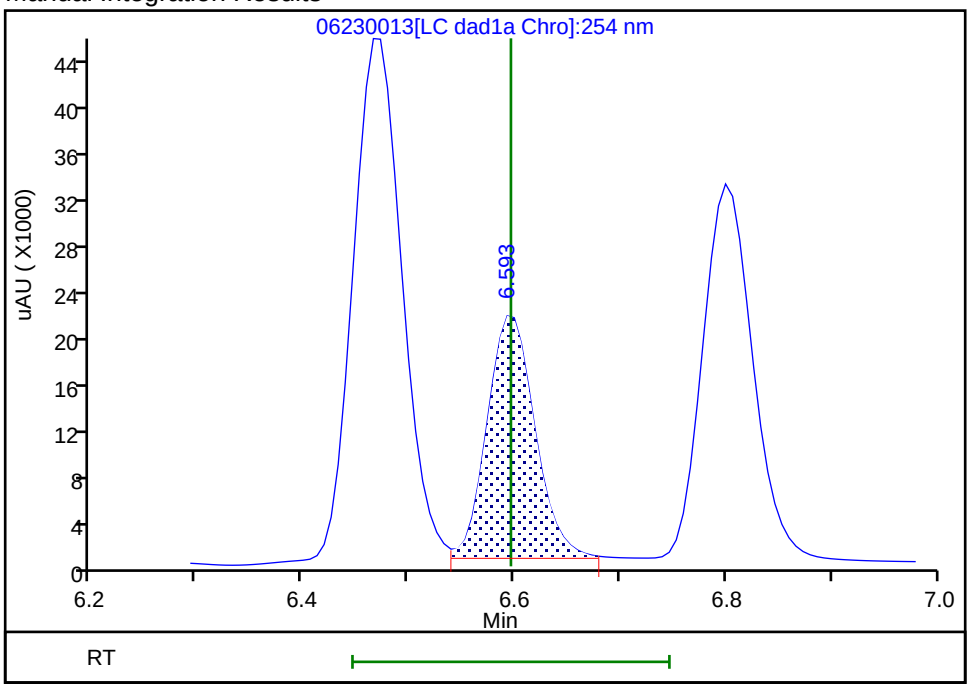
Processing Integration Results

RT: 6.59
Area: 75772
Amount: 0.790781
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 65593
Amount: 0.695907
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:10:13 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

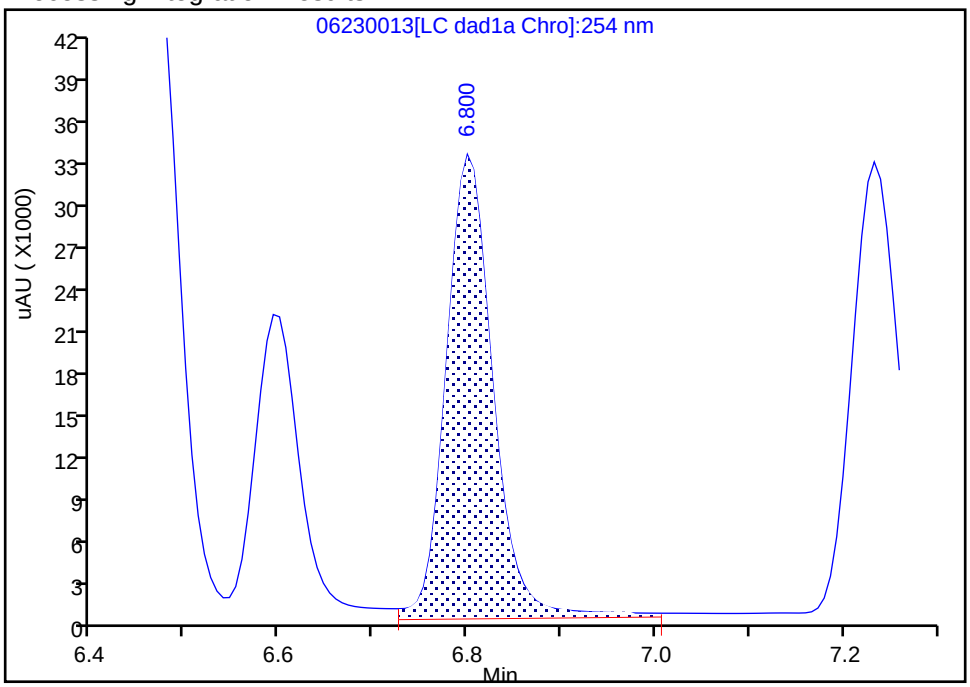
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230013.d				
Injection Date:	23-Jun-2023 18:39:49	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

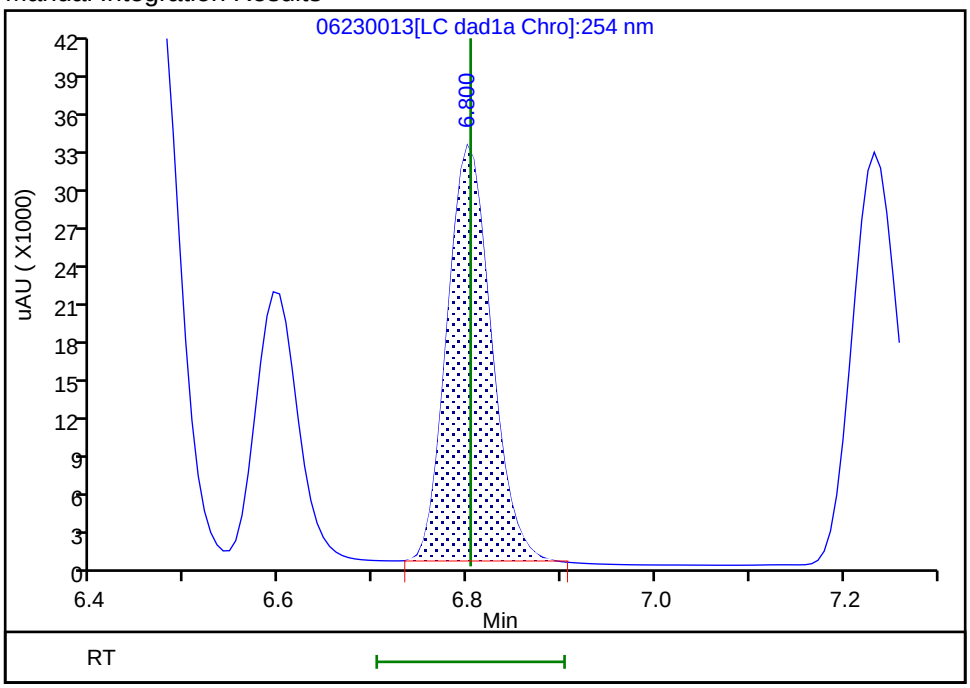
Processing Integration Results

RT: 6.80
Area: 113702
Amount: 0.773362
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 104556
Amount: 0.723607
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:10:15 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230014.D
Lims ID: IC INT/DMT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 23-Jun-2023 19:02:45 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:49 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 19:38:20

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.474	6.470	0.004	76609	0.4012	0.3816	M
4 HMX	1	6.600	6.597	0.003	35849	0.4000	0.3803	M
6 DNX	1	6.807	6.803	0.004	57208	0.4004	0.3959	M
7 MNX	1	7.240	7.237	0.003	62440	0.4668	0.4502	
8 RDX	1	7.627	7.623	0.004	42514	0.4000	0.3848	
9 2,4,6-Trinitrophenol	1	8.020	8.030	-0.010	31468	0.4000	0.4041	
$ 10 1,2-Dinitrobenzene	1	8.594	8.590	0.004	50062	0.4000	0.4040	
11 1,3,5-Trinitrobenzene	1	8.714	8.710	0.004	89063	0.4000	0.4122	
12 1,3-Dinitrobenzene	1	9.340	9.336	0.004	118059	0.4000	0.4025	
13 Nitrobenzene	1	9.713	9.710	0.003	76555	0.4000	0.3973	
14 3,5-Dinitroaniline	1	9.947	9.943	0.004	90451	0.4000	0.4023	
15 Tetryl	1	10.087	10.083	0.004	67629	0.4000	0.4043	
16 Nitroglycerin	2	10.540	10.536	0.004	270481	4.00	4.18	
17 2,4,6-Trinitrotoluene	1	10.980	10.976	0.004	82972	0.4000	0.4049	
18 4-Amino-2,6-dinitrotoluene	1	11.180	11.170	0.010	59989	0.4000	0.4011	
19 2-Amino-4,6-dinitrotoluene	1	11.433	11.423	0.010	77156	0.4000	0.3983	
20 2,6-Dinitrotoluene	1	11.587	11.576	0.011	57368	0.4000	0.4022	
21 2,4-Dinitrotoluene	1	11.753	11.743	0.010	118425	0.4000	0.4005	
22 o-Nitrotoluene	1	12.587	12.570	0.017	49671	0.4000	0.3938	
23 p-Nitrotoluene	1	13.007	12.983	0.024	42626	0.4000	0.3872	
24 m-Nitrotoluene	1	13.580	13.556	0.024	54401	0.4000	0.3974	
25 PETN	2	14.760	14.723	0.037	290067	4.00	4.03	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	40.00	Units: uL
8330 DMT_00013	Amount Added:	20.00	Units: uL

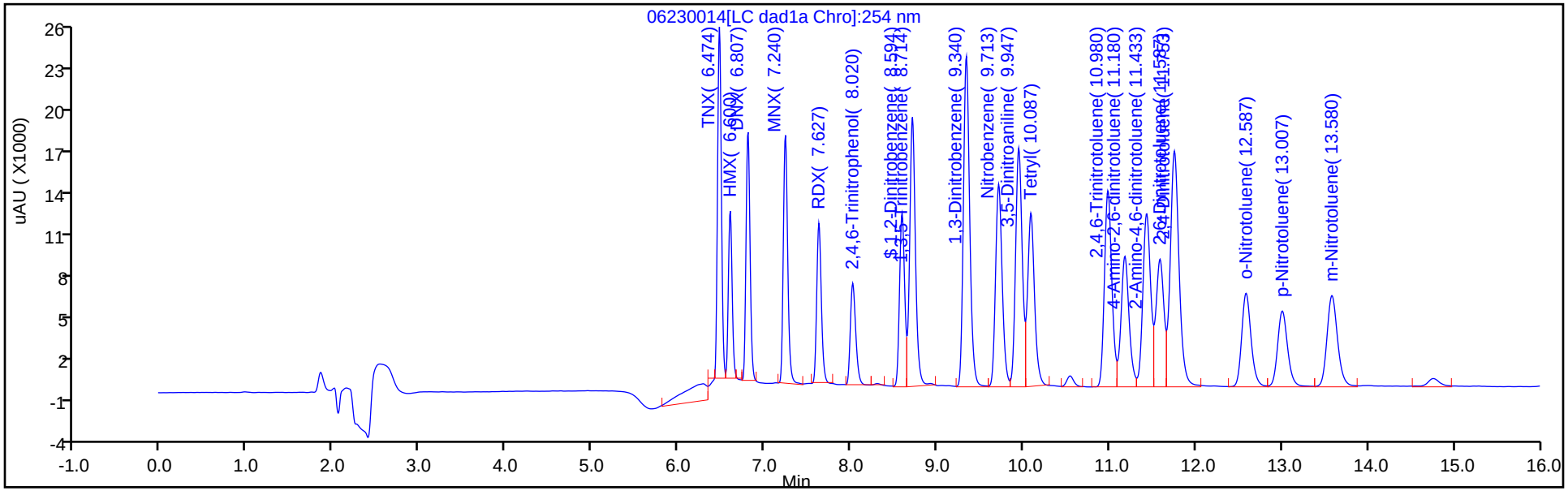
Report Date: 24-Jun-2023 12:55:49 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

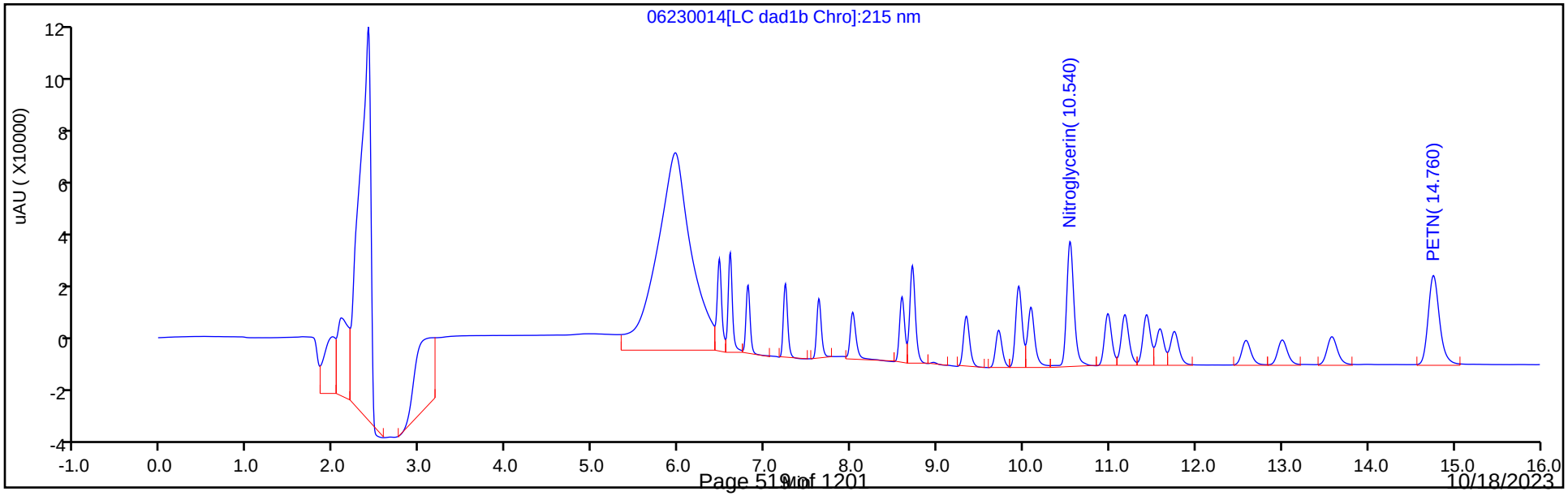
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230014.d

Injection Date:	23-Jun-2023 19:02:45	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 6			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

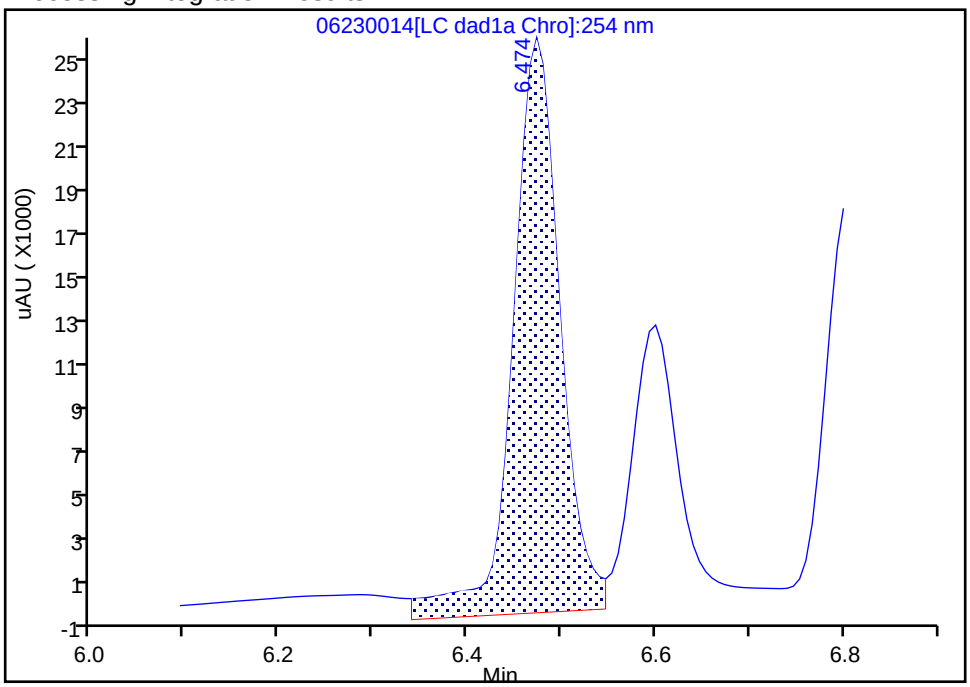
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230014.d				
Injection Date:	23-Jun-2023 19:02:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

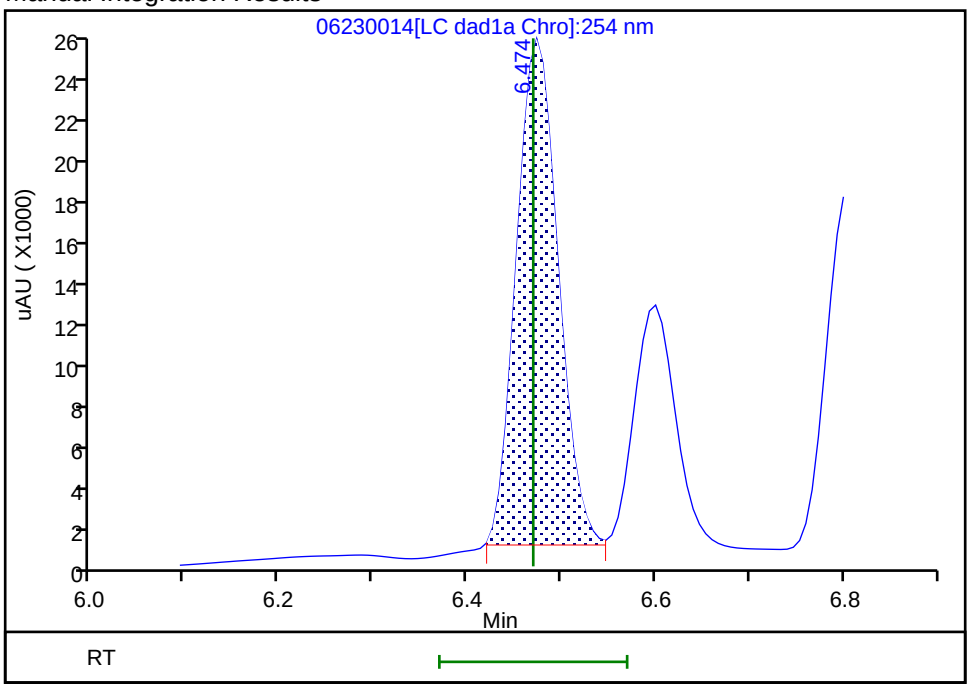
Processing Integration Results

RT: 6.47
Area: 91599
Amount: 0.456417
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 76609
Amount: 0.381593
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:38:09 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

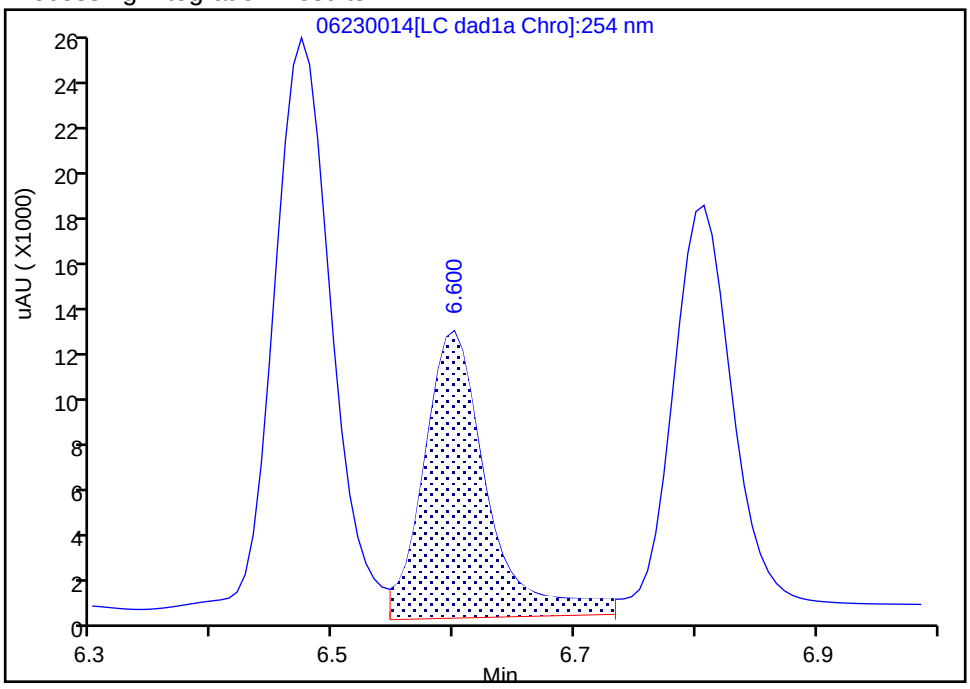
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230014.d				
Injection Date:	23-Jun-2023 19:02:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

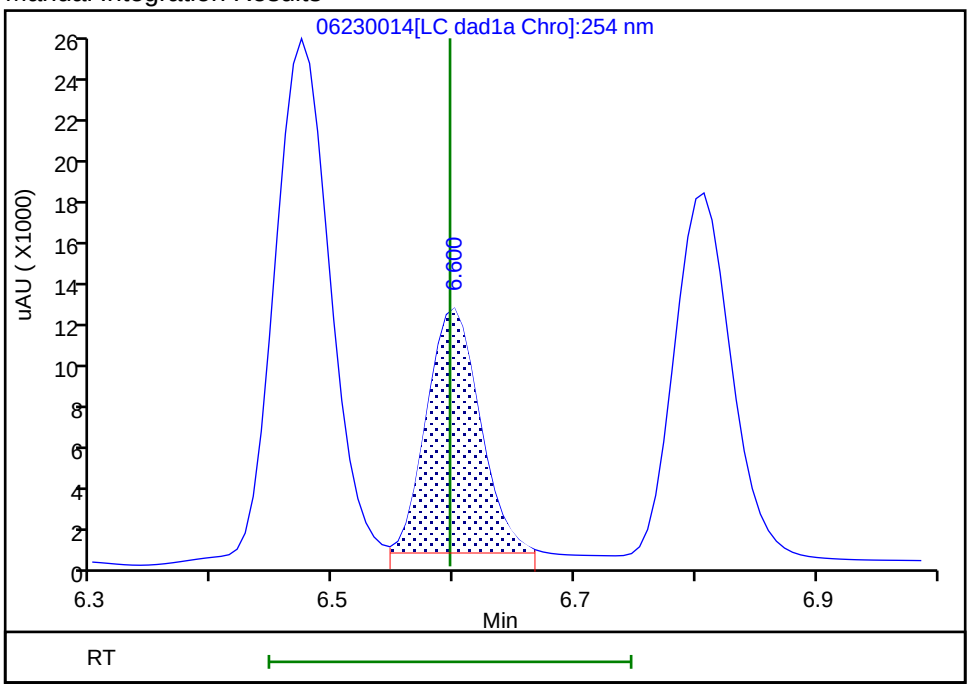
Processing Integration Results

RT: 6.60
Area: 46317
Amount: 0.478320
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 35849
Amount: 0.380339
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:38:10 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

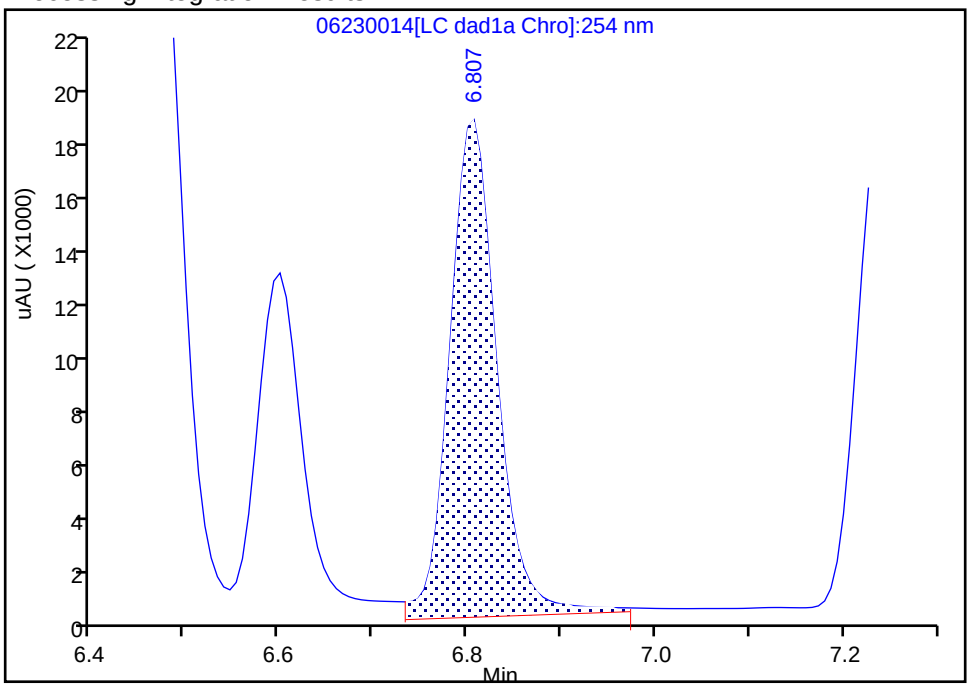
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230014.d				
Injection Date:	23-Jun-2023 19:02:45	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

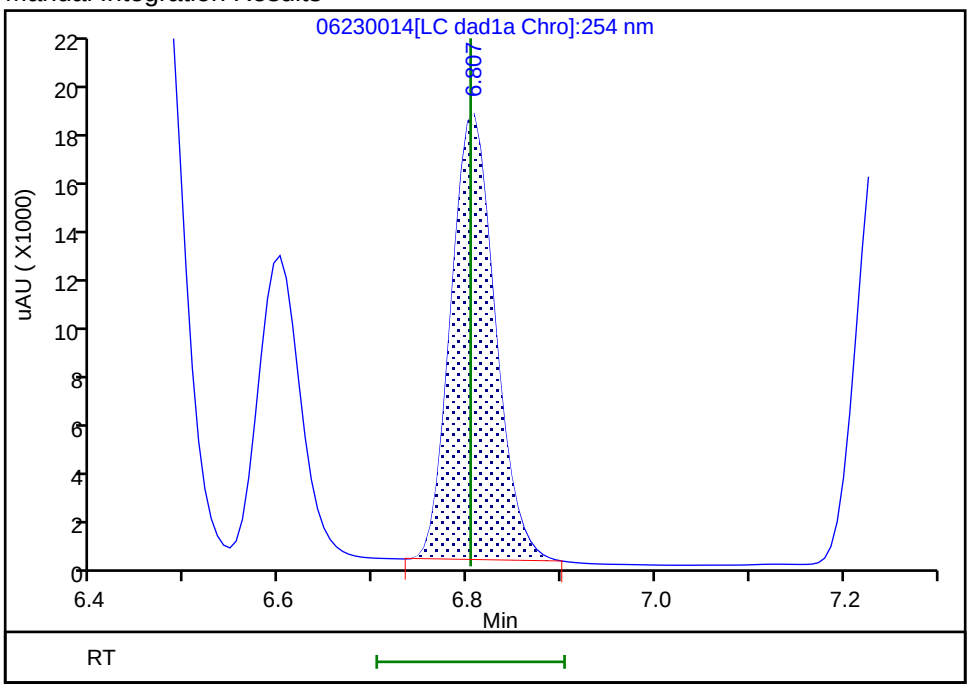
Processing Integration Results

RT: 6.81
Area: 63610
Amount: 0.433034
Amount Units: ug/mL



Manual Integration Results

RT: 6.81
Area: 57208
Amount: 0.395923
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 19:38:16 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230015.D
Lims ID: IC INT/DMT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 23-Jun-2023 19:25:40 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:49 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 20:05:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.478	6.470	0.008	49970	0.2508	0.2489	M
4 HMX	1	6.598	6.597	0.001	23321	0.2500	0.2474	M
6 DNX	1	6.805	6.803	0.002	36397	0.2503	0.2519	M
7 MNX	1	7.238	7.237	0.001	39495	0.2918	0.2848	
8 RDX	1	7.625	7.623	0.002	27039	0.2500	0.2447	
9 2,4,6-Trinitrophenol	1	8.025	8.030	-0.005	19262	0.2500	0.2474	
$ 10 1,2-Dinitrobenzene	1	8.591	8.590	0.001	31068	0.2500	0.2507	
11 1,3,5-Trinitrobenzene	1	8.711	8.710	0.001	55138	0.2500	0.2552	
12 1,3-Dinitrobenzene	1	9.338	9.336	0.002	73356	0.2500	0.2501	
13 Nitrobenzene	1	9.711	9.710	0.001	47571	0.2500	0.2469	
14 3,5-Dinitroaniline	1	9.945	9.943	0.002	55971	0.2500	0.2491	
15 Tetryl	1	10.085	10.083	0.002	42107	0.2500	0.2518	
16 Nitroglycerin	2	10.545	10.536	0.009	161167	2.50	2.49	
17 2,4,6-Trinitrotoluene	1	10.985	10.976	0.009	51584	0.2500	0.2517	
18 4-Amino-2,6-dinitrotoluene	1	11.178	11.170	0.008	36921	0.2500	0.2469	
19 2-Amino-4,6-dinitrotoluene	1	11.431	11.423	0.008	48118	0.2500	0.2484	
20 2,6-Dinitrotoluene	1	11.585	11.576	0.009	35503	0.2500	0.2489	
21 2,4-Dinitrotoluene	1	11.758	11.743	0.015	73049	0.2500	0.2470	
22 o-Nitrotoluene	1	12.585	12.570	0.015	30758	0.2500	0.2439	
23 p-Nitrotoluene	1	13.011	12.983	0.028	26234	0.2500	0.2383	
24 m-Nitrotoluene	1	13.585	13.556	0.029	33854	0.2500	0.2458	
25 PETN	2	14.765	14.723	0.042	179178	2.50	2.49	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	25.00	Units: uL
8330 DMT_00013	Amount Added:	12.50	Units: uL

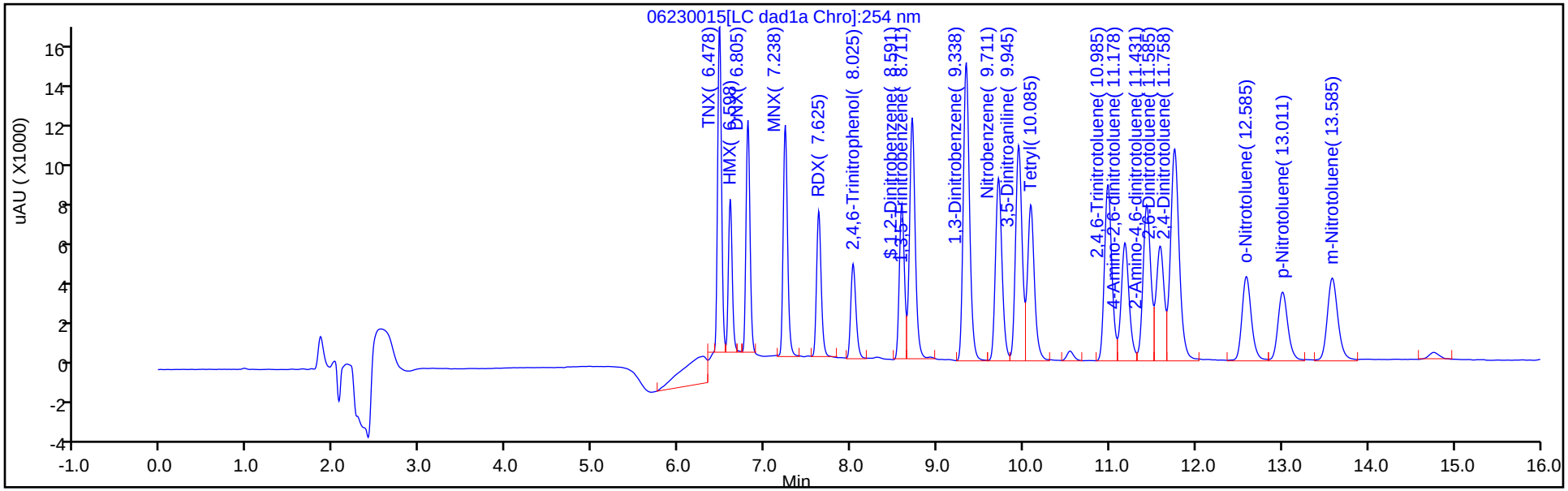
Report Date: 24-Jun-2023 12:55:49 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

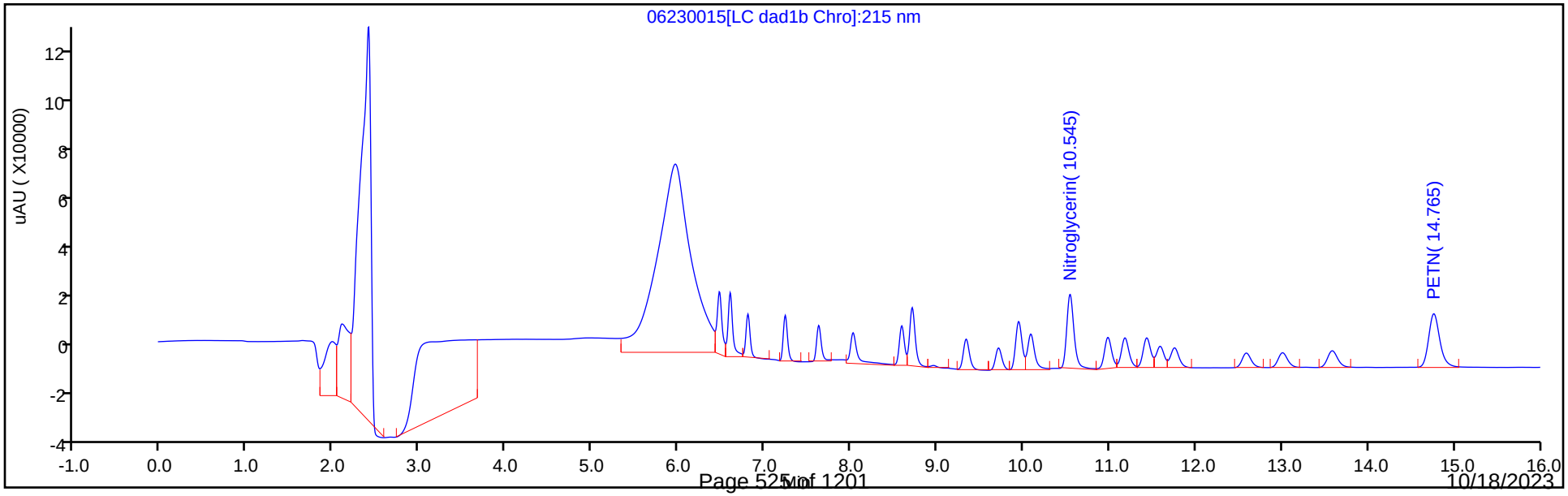
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230015.d

Injection Date:	23-Jun-2023 19:25:40	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 5			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023 8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

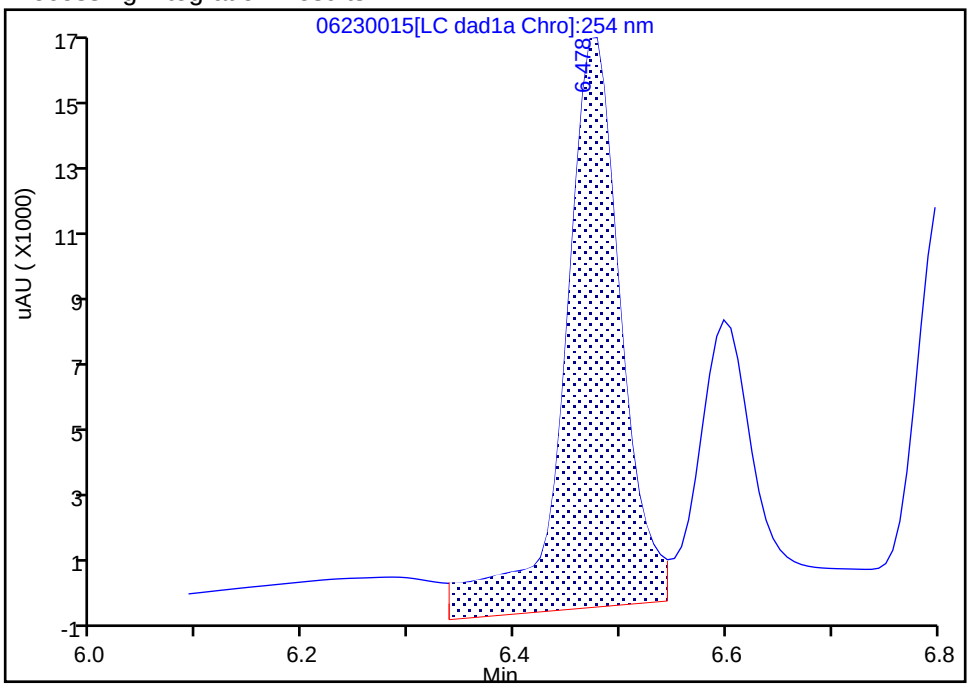
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230015.d				
Injection Date:	23-Jun-2023 19:25:40	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

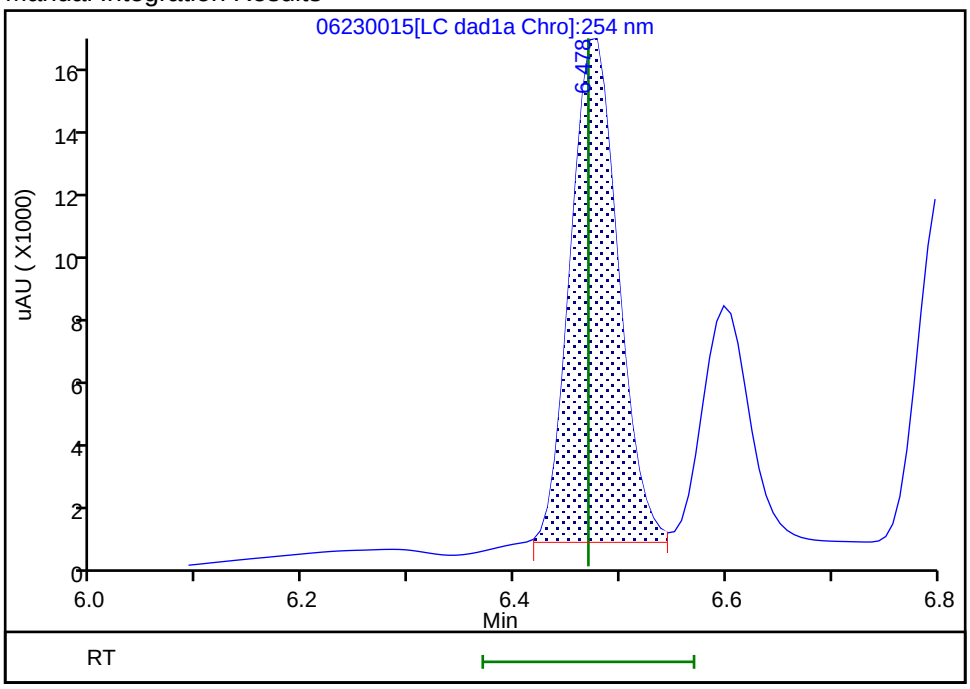
Processing Integration Results

RT: 6.48
Area: 64305
Amount: 0.315734
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 49970
Amount: 0.248903
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:05:50 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

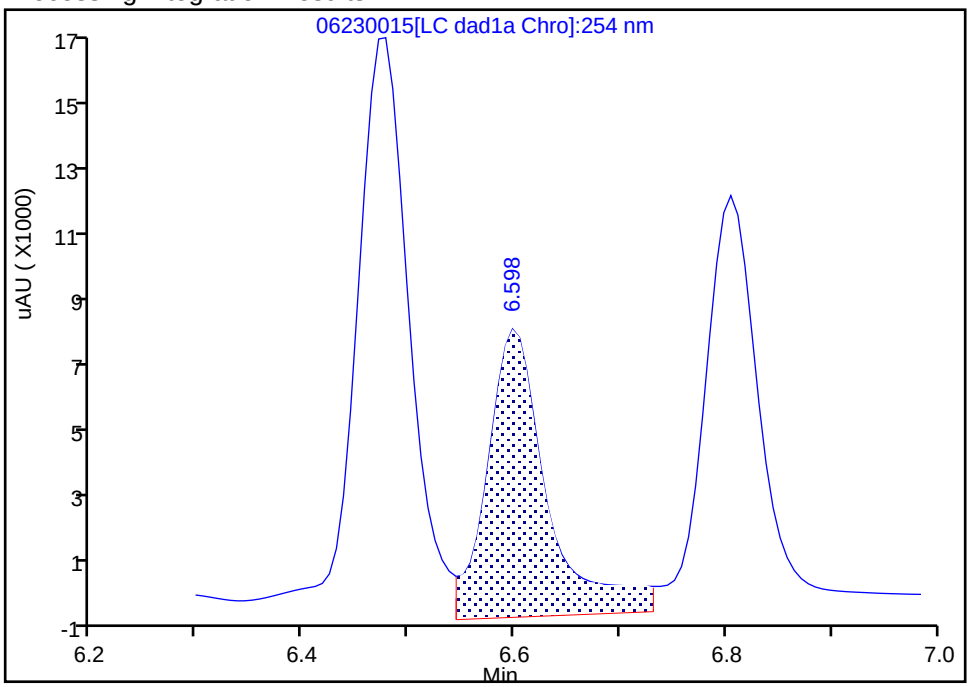
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230015.d				
Injection Date:	23-Jun-2023 19:25:40	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

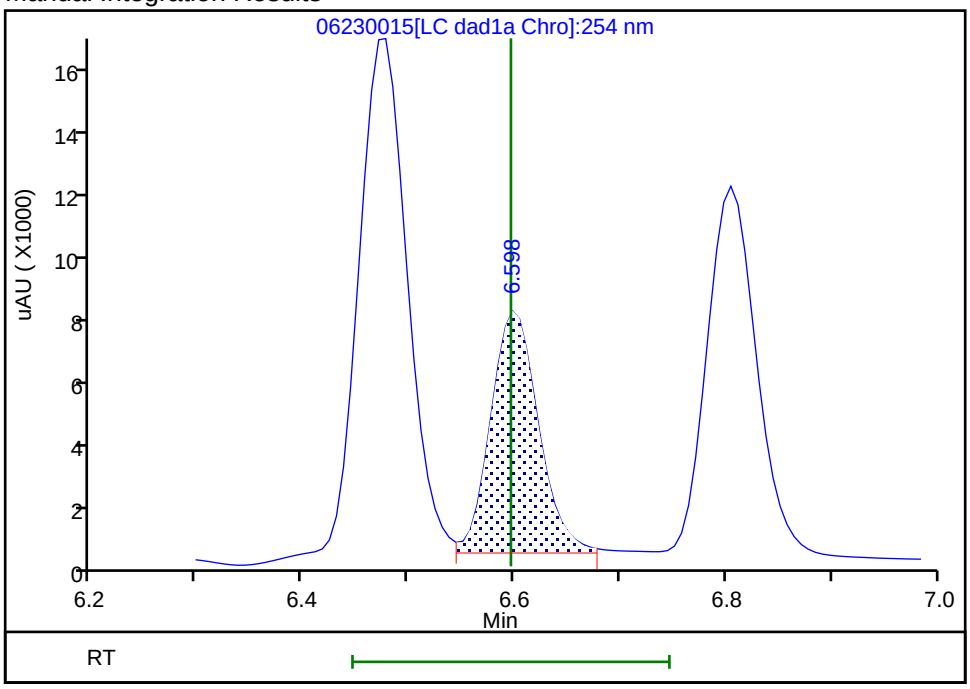
Processing Integration Results

RT: 6.60
Area: 32748
Amount: 0.334028
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 23321
Amount: 0.247424
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:05:51 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

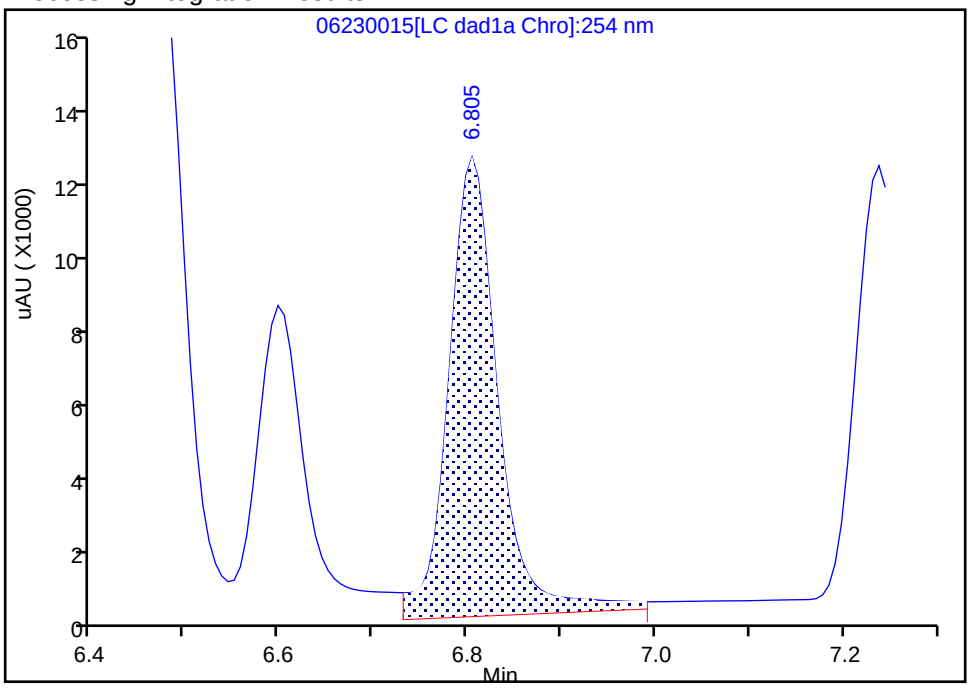
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230015.d
Injection Date: 23-Jun-2023 19:25:40 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 5
Client ID:
Operator ID: JZ/JG ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

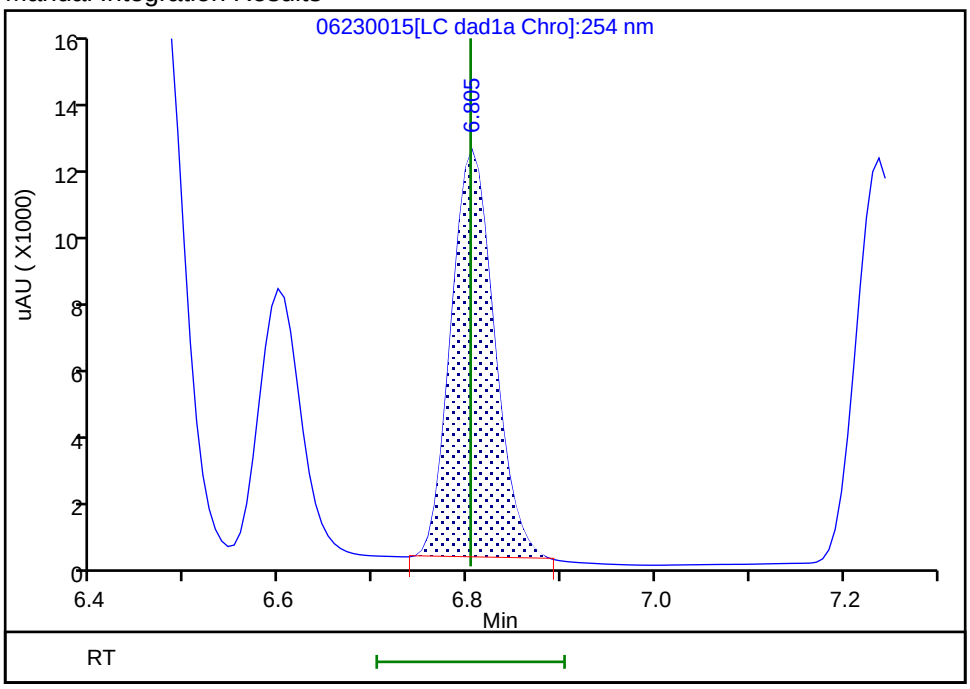
Processing Integration Results

RT: 6.80
Area: 43745
Amount: 0.293331
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 36397
Amount: 0.251895
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:05:53 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230016.D
Lims ID: IC INT/DMT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Jun-2023 19:48:35 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:50 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 20:36:30

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.470	6.470	0.000	20003	0.1003	0.0996	M
4 HMX	1	6.597	6.597	0.000	9201	0.1000	0.0976	M
6 DNX	1	6.803	6.803	0.000	14726	0.1001	0.1019	M
7 MNX	1	7.237	7.237	0.000	16173	0.1167	0.1166	
8 RDX	1	7.623	7.623	0.000	11457	0.1000	0.1037	
9 2,4,6-Trinitrophenol	1	8.030	8.030	0.000	7951	0.1000	0.1021	
$ 10 1,2-Dinitrobenzene	1	8.590	8.590	0.000	12783	0.1000	0.1032	
11 1,3,5-Trinitrobenzene	1	8.710	8.710	0.000	21684	0.1000	0.1004	
12 1,3-Dinitrobenzene	1	9.336	9.336	0.000	29890	0.1000	0.1019	
13 Nitrobenzene	1	9.710	9.710	0.000	19309	0.1000	0.1002	
14 3,5-Dinitroaniline	1	9.943	9.943	0.000	22486	0.1000	0.1004	
15 Tetryl	1	10.083	10.083	0.000	16961	0.1000	0.1014	
16 Nitroglycerin	2	10.536	10.536	0.000	65270	1.00	1.01	
17 2,4,6-Trinitrotoluene	1	10.976	10.976	0.000	20907	0.1000	0.1020	
18 4-Amino-2,6-dinitrotoluene	1	11.170	11.170	0.000	15058	0.1000	0.1007	
19 2-Amino-4,6-dinitrotoluene	1	11.423	11.423	0.000	19302	0.1000	0.0996	
20 2,6-Dinitrotoluene	1	11.576	11.576	0.000	14495	0.1000	0.1016	
21 2,4-Dinitrotoluene	1	11.743	11.743	0.000	29811	0.1000	0.1008	
22 o-Nitrotoluene	1	12.570	12.570	0.000	12912	0.1000	0.1024	
23 p-Nitrotoluene	1	12.983	12.983	0.000	11057	0.1000	0.1004	
24 m-Nitrotoluene	1	13.556	13.556	0.000	14001	0.1000	0.0993	
25 PETN	2	14.723	14.723	0.000	72200	1.00	1.00	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	10.00	Units: uL
8330 DMT_00013	Amount Added:	5.00	Units: uL

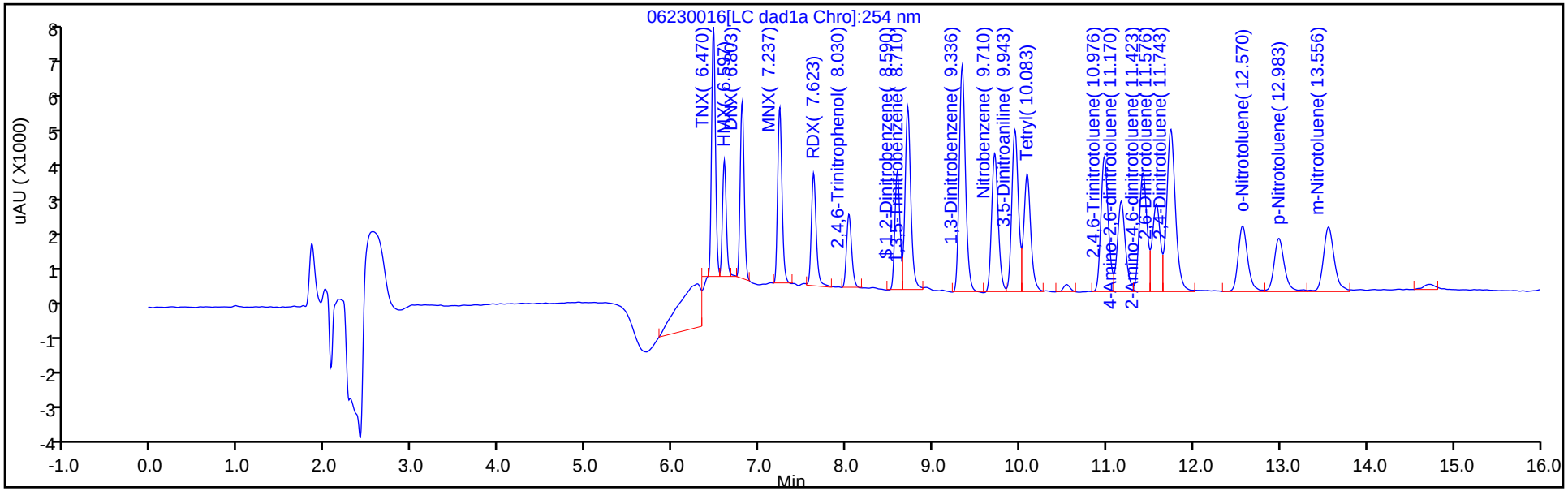
Report Date: 24-Jun-2023 12:55:50 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

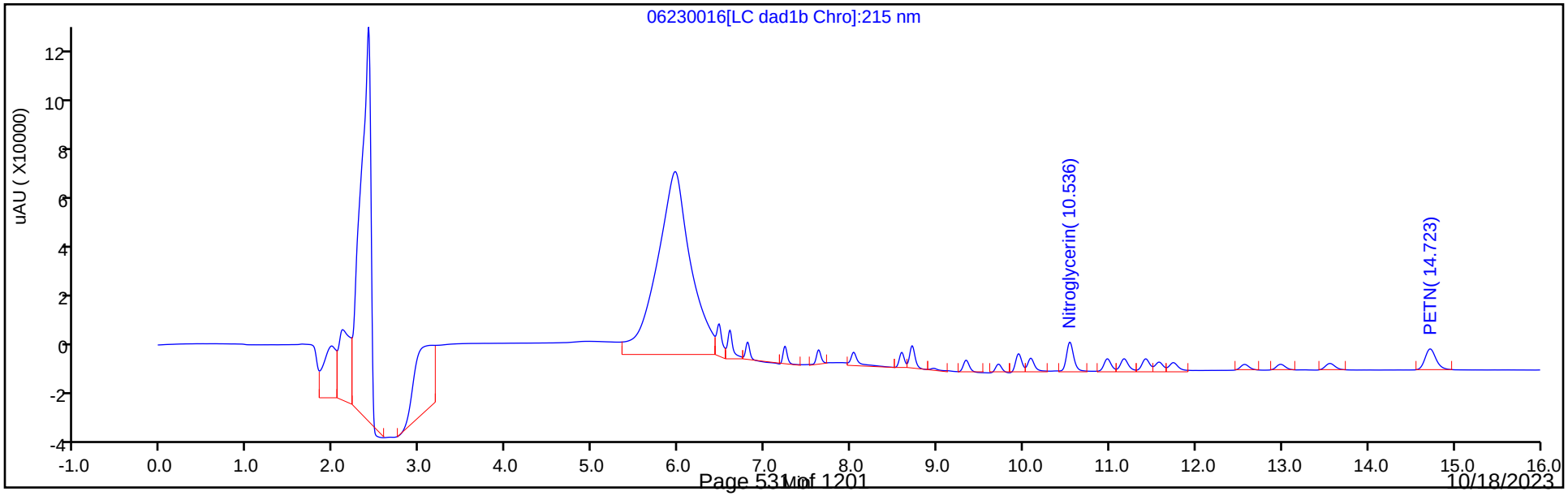
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230016.d

Injection Date:	23-Jun-2023 19:48:35	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 4			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

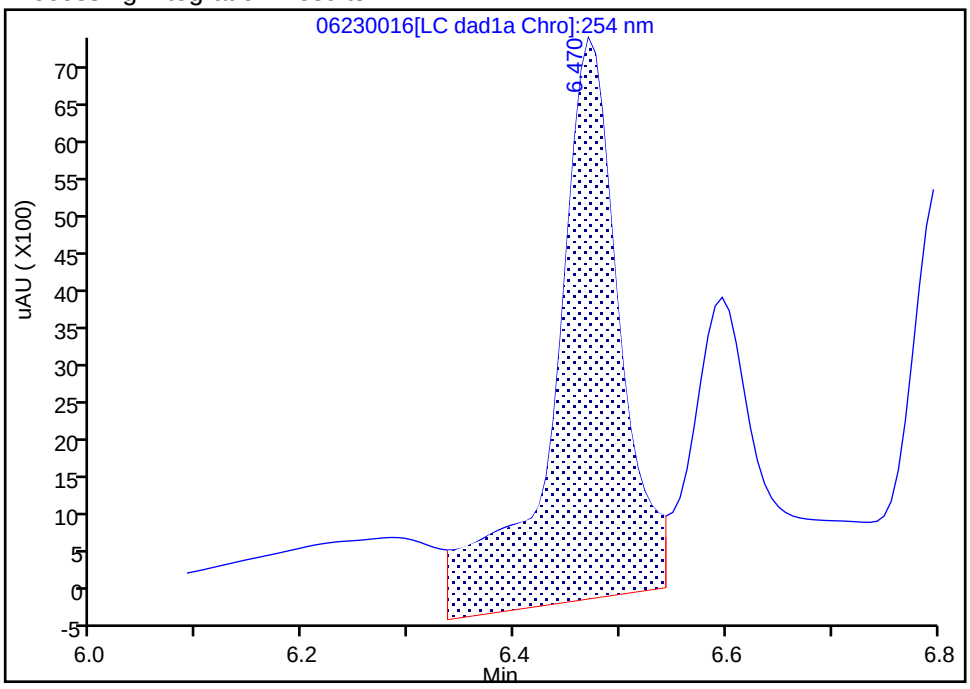
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230016.d				
Injection Date:	23-Jun-2023 19:48:35	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

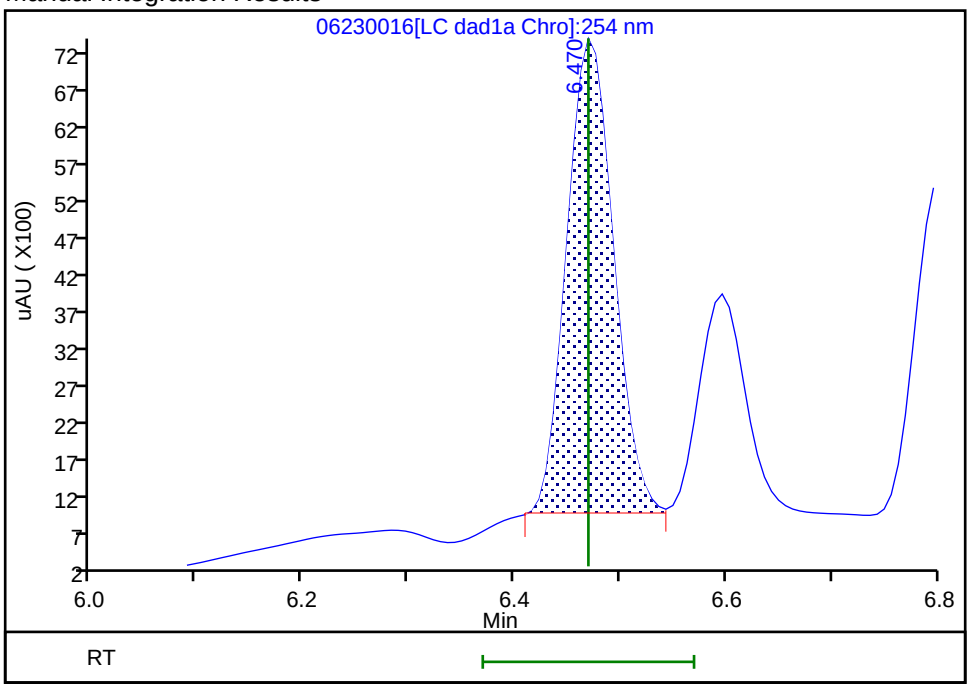
Processing Integration Results

RT: 6.47
Area: 32992
Amount: 0.149030
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 20003
Amount: 0.099636
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:24 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

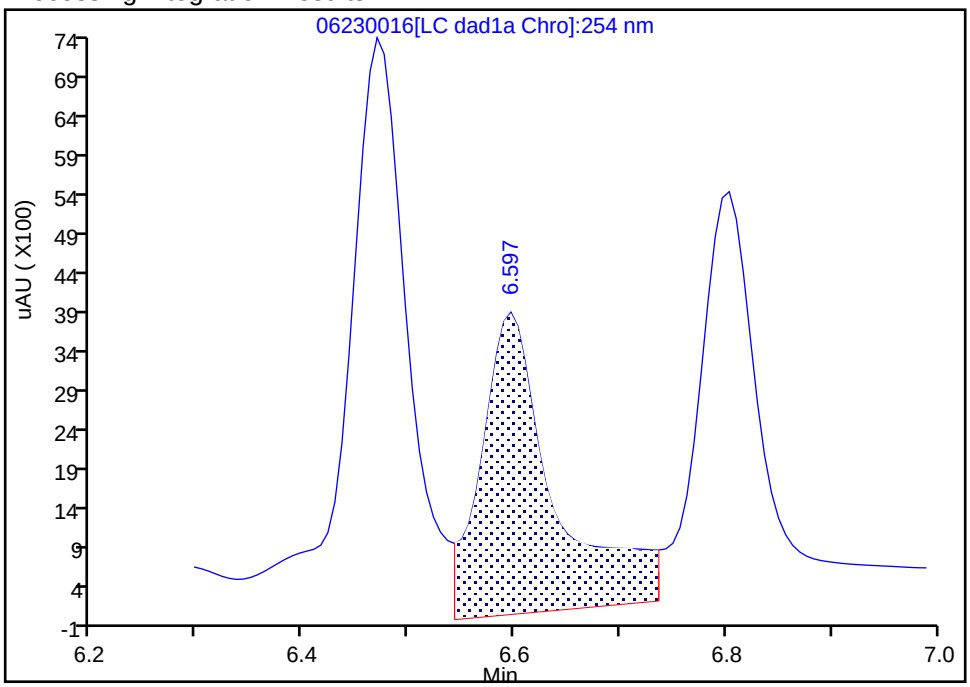
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230016.d
Injection Date: 23-Jun-2023 19:48:35 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

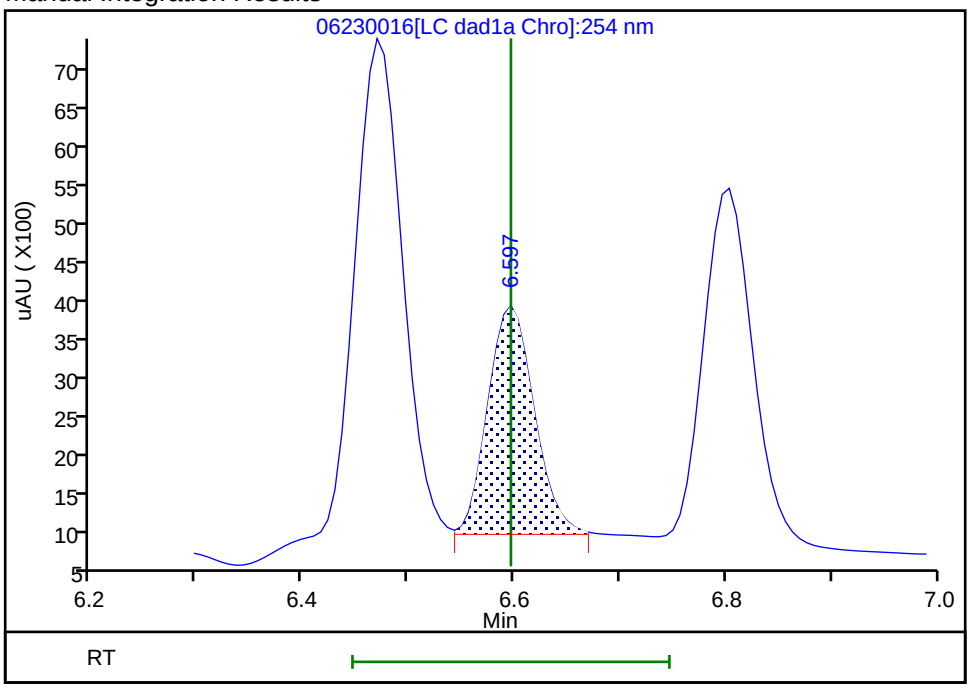
Processing Integration Results

RT: 6.60
Area: 18398
Amount: 0.150991
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 9201
Amount: 0.097618
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:25 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

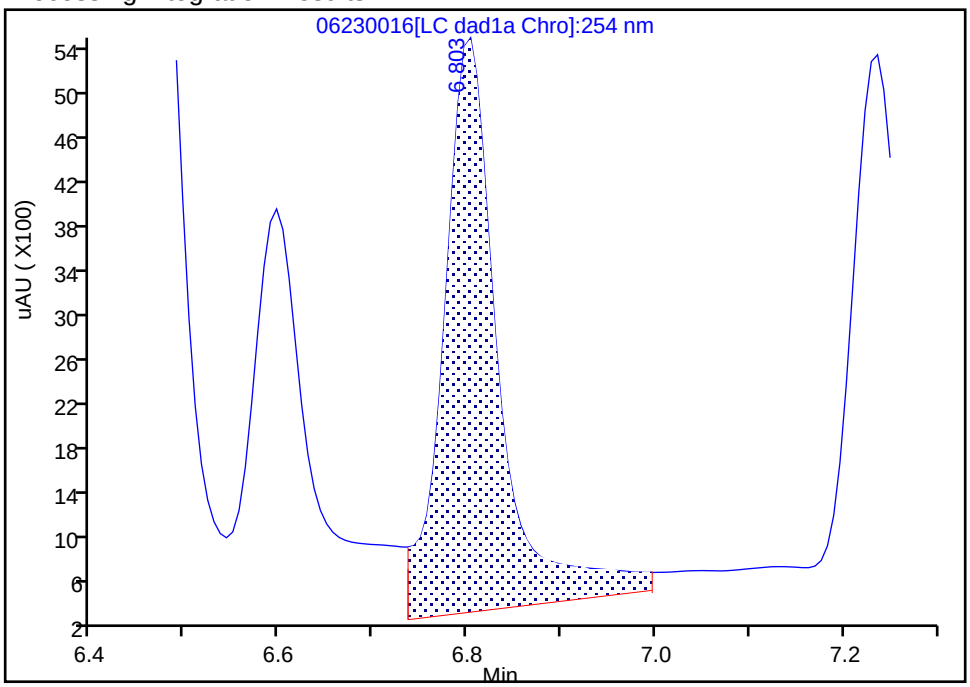
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230016.d
Injection Date: 23-Jun-2023 19:48:35 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 4
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

6 DNX, CAS: 80251-29-2

Signal: 1

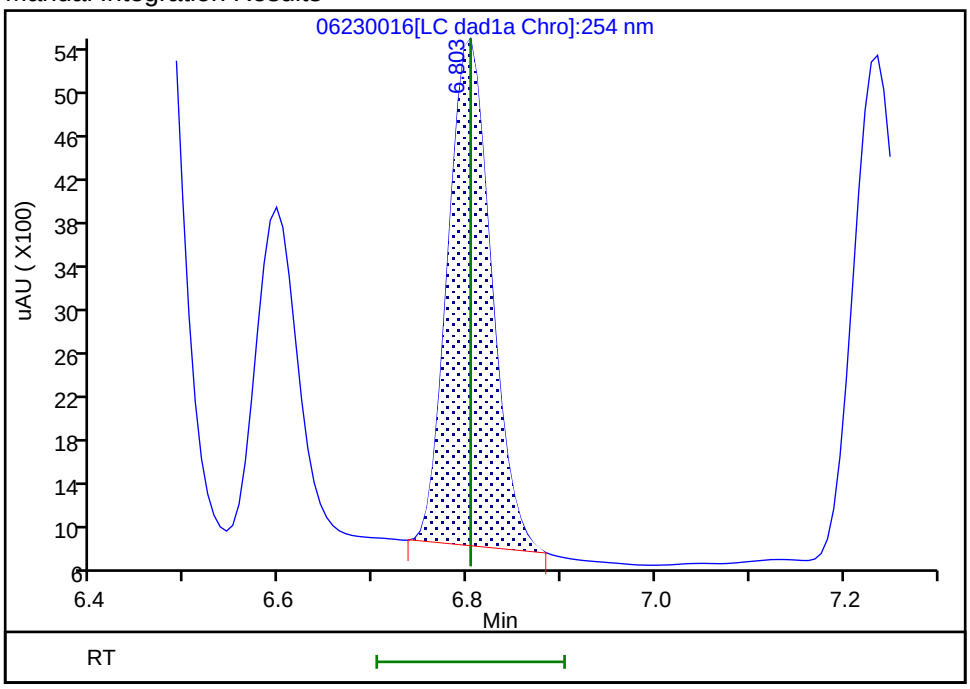
Processing Integration Results

RT: 6.80
Area: 21037
Amount: 0.133837
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 14726
Amount: 0.101915
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:28 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230017.D
Lims ID: IC INT/DMT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Jun-2023 20:11:32 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 3
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:50 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 20:36:49

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.472	6.470	0.002	9975	0.0502	0.0497	M
4 HMX	1	6.598	6.597	0.001	4496	0.0500	0.0477	M
6 DNX	1	6.798	6.803	-0.005	7299	0.0501	0.0505	M
7 MNX	1	7.232	7.237	-0.005	8151	0.0584	0.0588	
8 RDX	1	7.625	7.623	0.002	5472	0.0500	0.0495	
9 2,4,6-Trinitrophenol	1	8.032	8.030	0.002	3979	0.0500	0.0511	
$ 10 1,2-Dinitrobenzene	1	8.585	8.590	-0.005	6250	0.0500	0.0504	
11 1,3,5-Trinitrobenzene	1	8.712	8.710	0.002	10805	0.0500	0.0500	
12 1,3-Dinitrobenzene	1	9.338	9.336	0.002	14684	0.0500	0.0501	
13 Nitrobenzene	1	9.711	9.710	0.001	9561	0.0500	0.0496	
14 3,5-Dinitroaniline	1	9.945	9.943	0.002	11168	0.0500	0.0502	
15 Tetryl	1	10.085	10.083	0.002	8232	0.0500	0.0492	
16 Nitroglycerin	2	10.538	10.536	0.002	31254	0.5000	0.4834	
17 2,4,6-Trinitrotoluene	1	10.978	10.976	0.002	10269	0.0500	0.0501	
18 4-Amino-2,6-dinitrotoluene	1	11.178	11.170	0.008	7431	0.0500	0.0497	
19 2-Amino-4,6-dinitrotoluene	1	11.431	11.423	0.008	9604	0.0500	0.0496	
20 2,6-Dinitrotoluene	1	11.585	11.576	0.009	7160	0.0500	0.0502	
21 2,4-Dinitrotoluene	1	11.751	11.743	0.008	14800	0.0500	0.0500	
22 o-Nitrotoluene	1	12.585	12.570	0.015	6403	0.0500	0.0508	
23 p-Nitrotoluene	1	13.005	12.983	0.022	5543	0.0500	0.0504	
24 m-Nitrotoluene	1	13.578	13.556	0.022	7282	0.0500	0.0498	
25 PETN	2	14.751	14.723	0.028	35921	0.5000	0.4988	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	5.00	Units: uL
8330 DMT_00013	Amount Added:	2.50	Units: uL

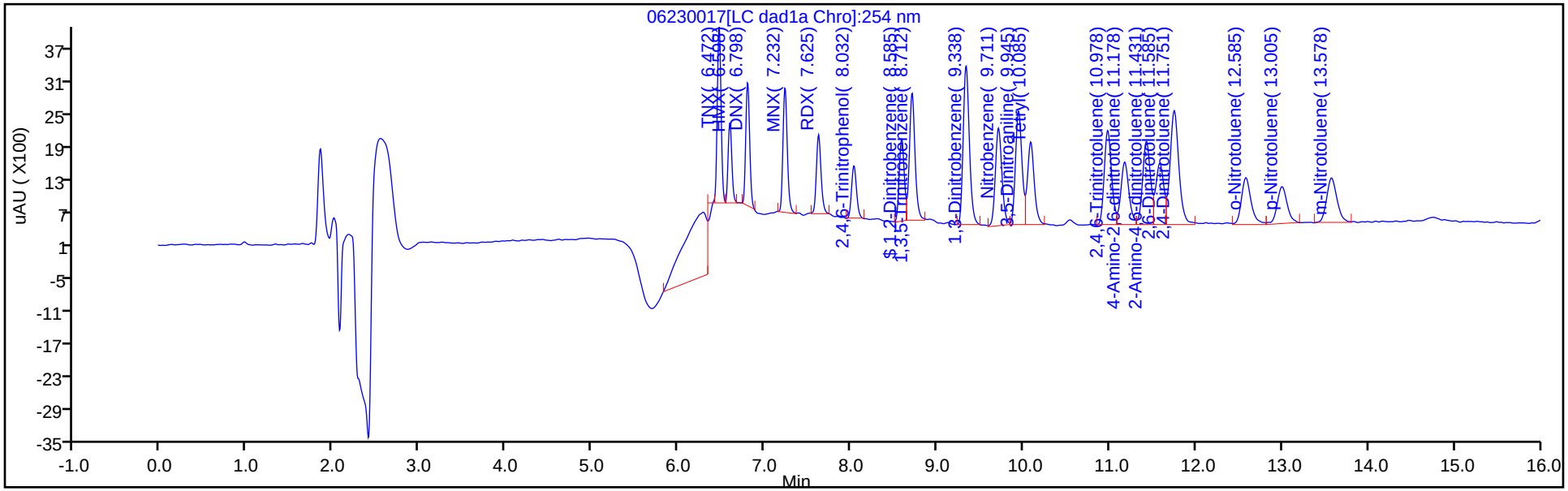
Report Date: 24-Jun-2023 12:55:50 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

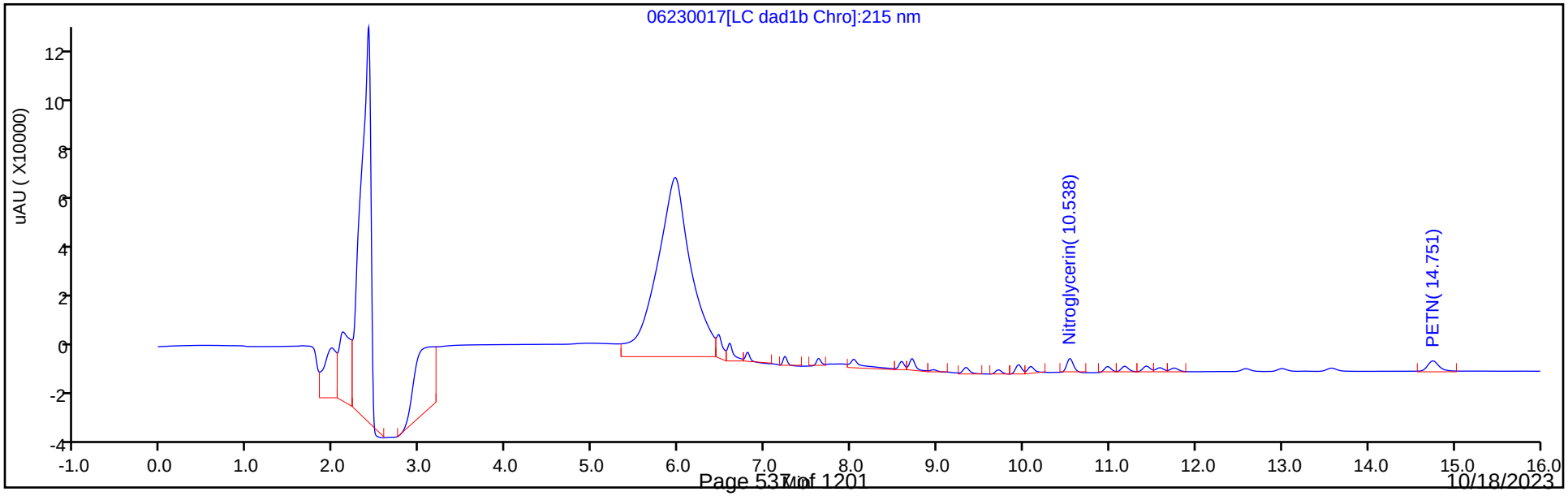
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230017.d

Injection Date:	23-Jun-2023 20:11:32	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 3			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

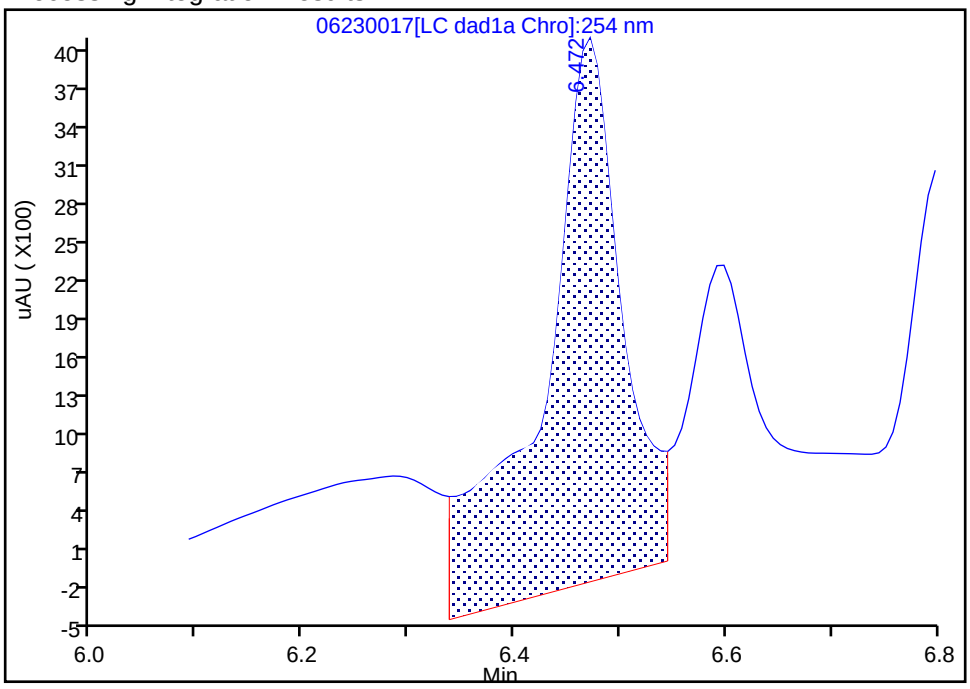
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230017.d				
Injection Date:	23-Jun-2023 20:11:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

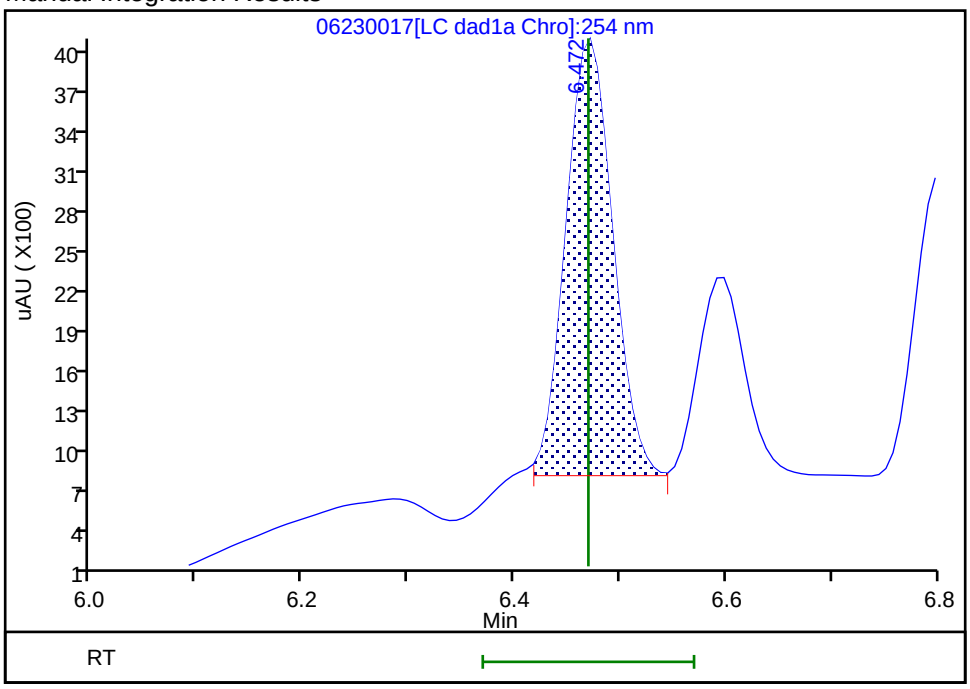
Processing Integration Results

RT: 6.47
Area: 22565
Amount: 0.100036
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 9975
Amount: 0.049686
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:36 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

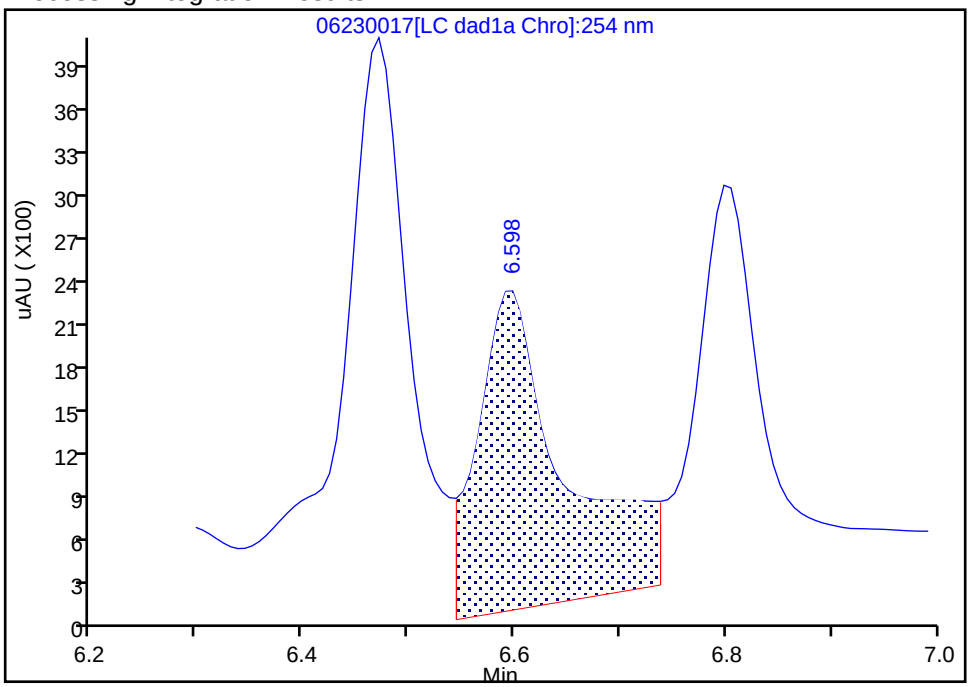
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230017.d				
Injection Date:	23-Jun-2023 20:11:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

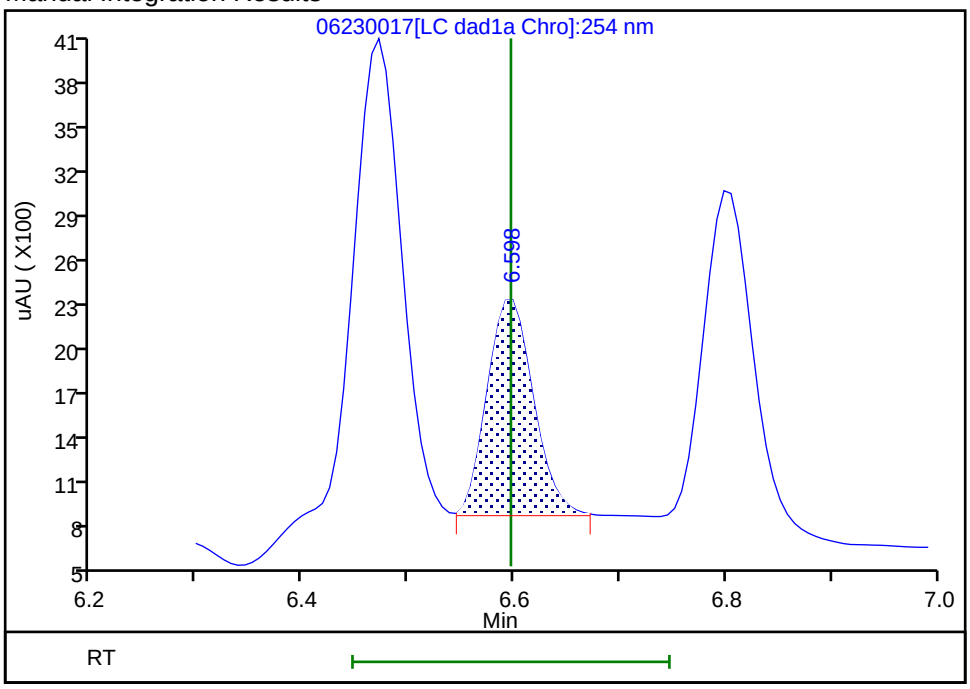
Processing Integration Results

RT: 6.60
Area: 12742
Amount: 0.114145
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 4496
Amount: 0.047700
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:38 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

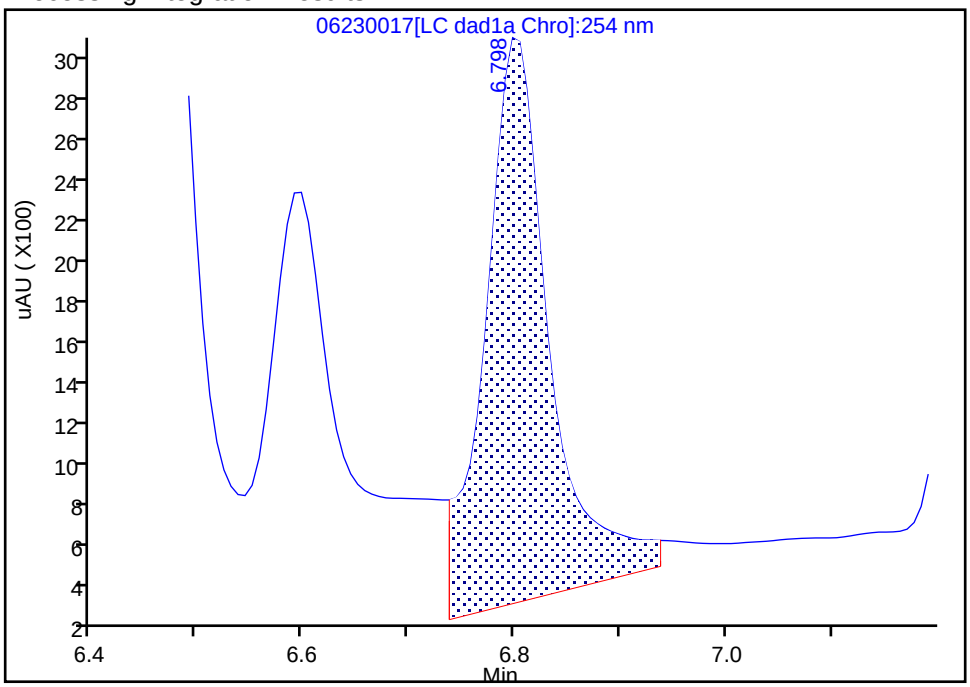
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230017.d				
Injection Date:	23-Jun-2023 20:11:32	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

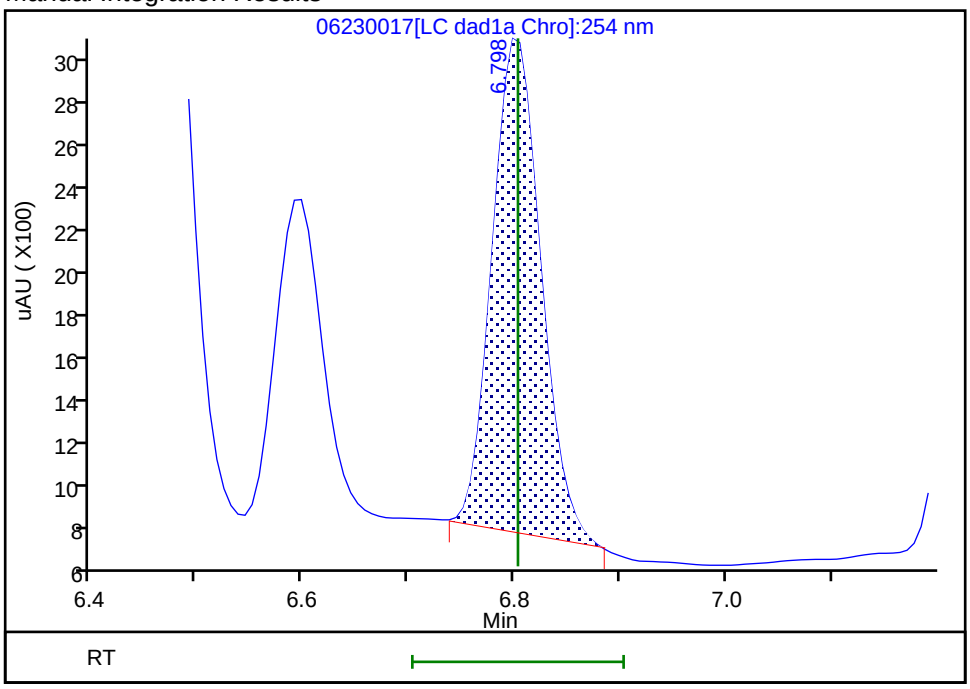
Processing Integration Results

RT: 6.80
Area: 11546
Amount: 0.074238
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 7299
Amount: 0.050515
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:41 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

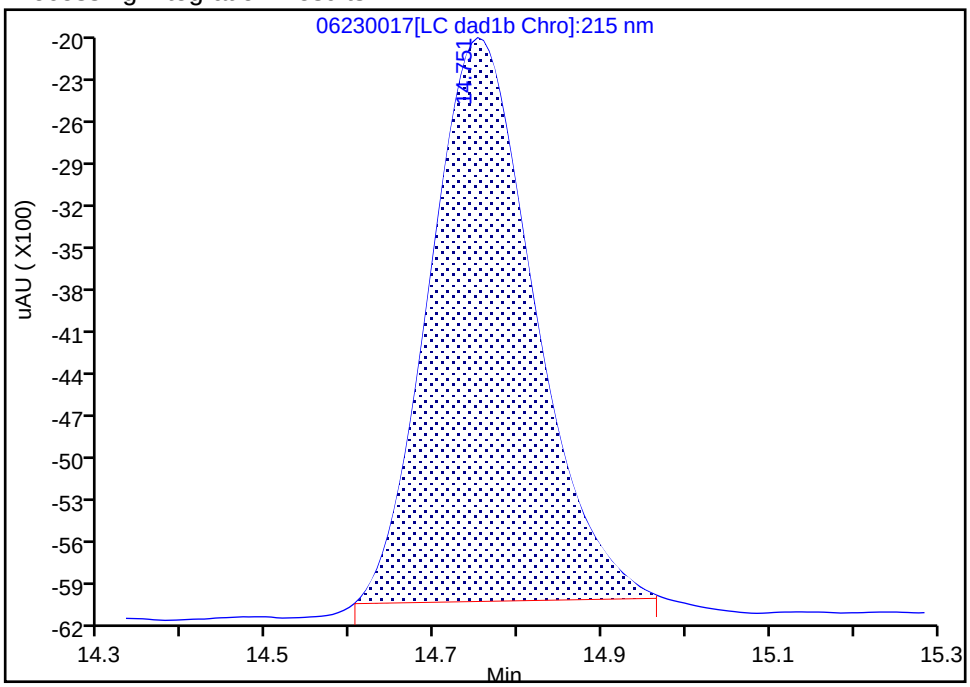
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230017.d
Injection Date: 23-Jun-2023 20:11:32 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1C, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

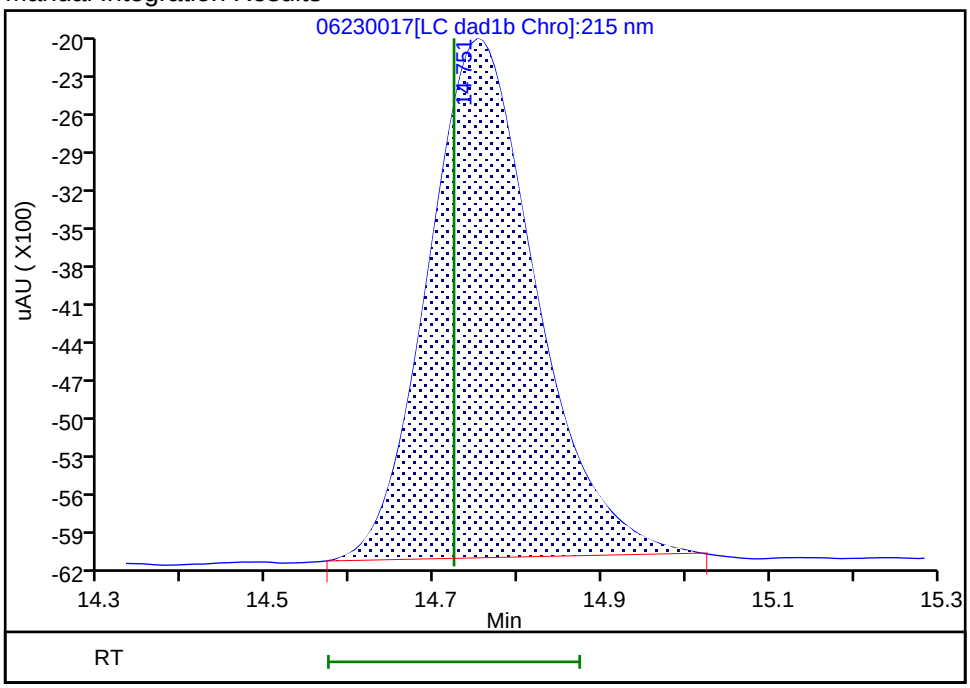
Processing Integration Results

RT: 14.75
Area: 34085
Amount: 0.477036
Amount Units: ug/mL



Manual Integration Results

RT: 14.75
Area: 35921
Amount: 0.498778
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 20:36:48 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230018.D
Lims ID: IC INT/DMT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Jun-2023 20:34:25 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 2
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:51 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 21:02:22

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.473	6.470	0.003	3897	0.0201	0.0194	M
4 HMX	1	6.593	6.597	-0.004	1960	0.0200	0.0208	M
6 DNX	1	6.799	6.803	-0.004	2620	0.0200	0.0181	M
7 MNX	1	7.233	7.237	-0.004	3155	0.0233	0.0227	
8 RDX	1	7.619	7.623	-0.004	2234	0.0200	0.0202	
9 2,4,6-Trinitrophenol	1	8.026	8.030	-0.004	1447	0.0200	0.0186	
$ 10 1,2-Dinitrobenzene	1	8.579	8.590	-0.011	2379	0.0200	0.0192	
11 1,3,5-Trinitrobenzene	1	8.699	8.710	-0.011	4083	0.0200	0.0189	
12 1,3-Dinitrobenzene	1	9.326	9.336	-0.010	5599	0.0200	0.0191	
13 Nitrobenzene	1	9.699	9.710	-0.011	3731	0.0200	0.0194	
14 3,5-Dinitroaniline	1	9.932	9.943	-0.011	4262	0.0200	0.0195	
15 Tetryl	1	10.066	10.083	-0.017	3248	0.0200	0.0194	
16 Nitroglycerin	2	10.526	10.536	-0.010	12682	0.2000	0.1962	
17 2,4,6-Trinitrotoluene	1	10.959	10.976	-0.017	3981	0.0200	0.0194	
18 4-Amino-2,6-dinitrotoluene	1	11.159	11.170	-0.011	3111	0.0200	0.0208	
19 2-Amino-4,6-dinitrotoluene	1	11.412	11.423	-0.011	3863	0.0200	0.0199	
20 2,6-Dinitrotoluene	1	11.566	11.576	-0.010	2916	0.0200	0.0204	
21 2,4-Dinitrotoluene	1	11.732	11.743	-0.011	5829	0.0200	0.0197	
22 o-Nitrotoluene	1	12.559	12.570	-0.011	2556	0.0200	0.0203	
23 p-Nitrotoluene	1	12.979	12.983	-0.004	2404	0.0200	0.0218	
24 m-Nitrotoluene	1	13.552	13.556	-0.004	3341	0.0200	0.0207	
25 PETN	2	14.719	14.723	-0.004	13637	0.2000	0.1894	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	2.00	Units: uL
8330 DMT_00013	Amount Added:	1.00	Units: uL

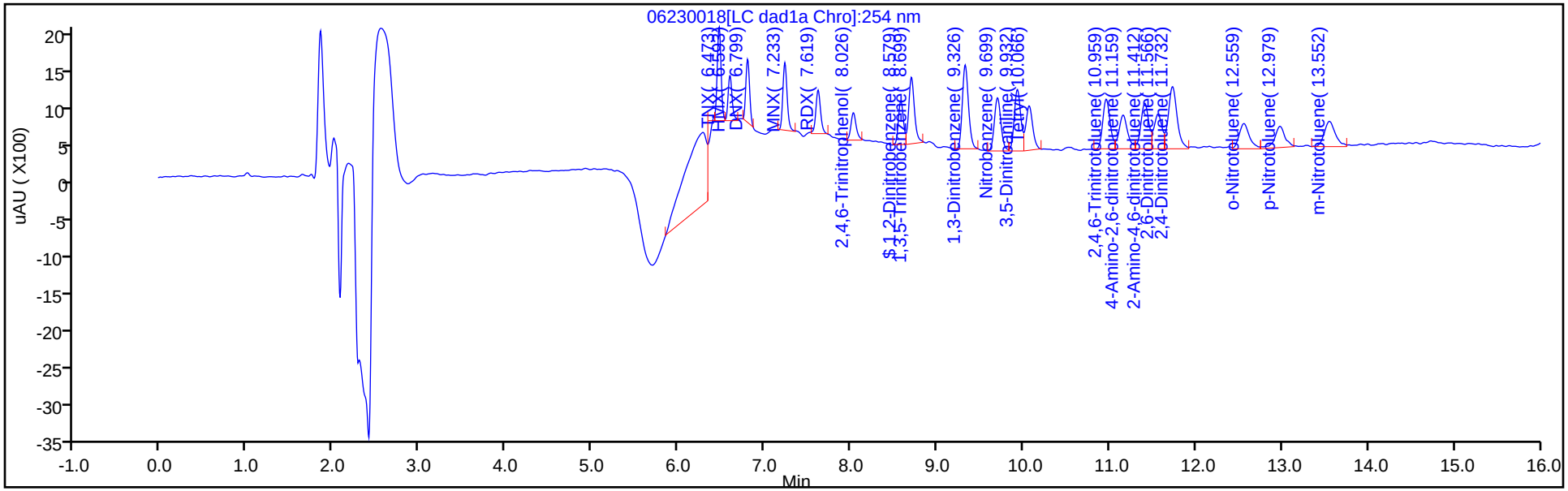
Report Date: 24-Jun-2023 12:55:51 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

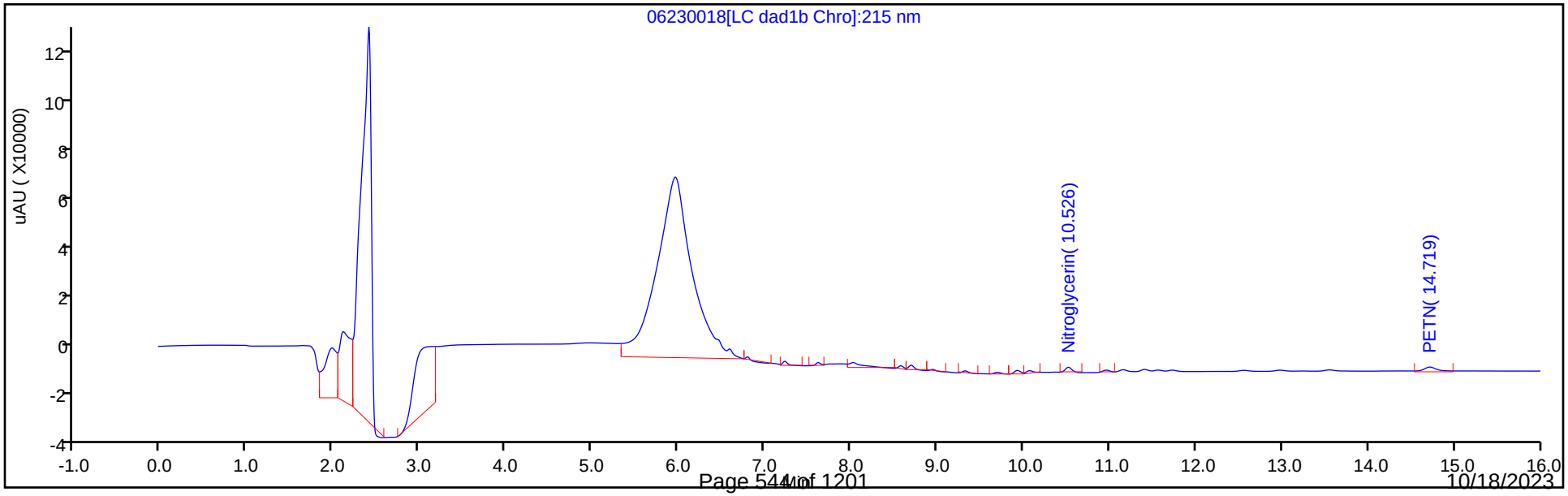
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230018.d

Injection Date:	23-Jun-2023 20:34:25	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 2			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

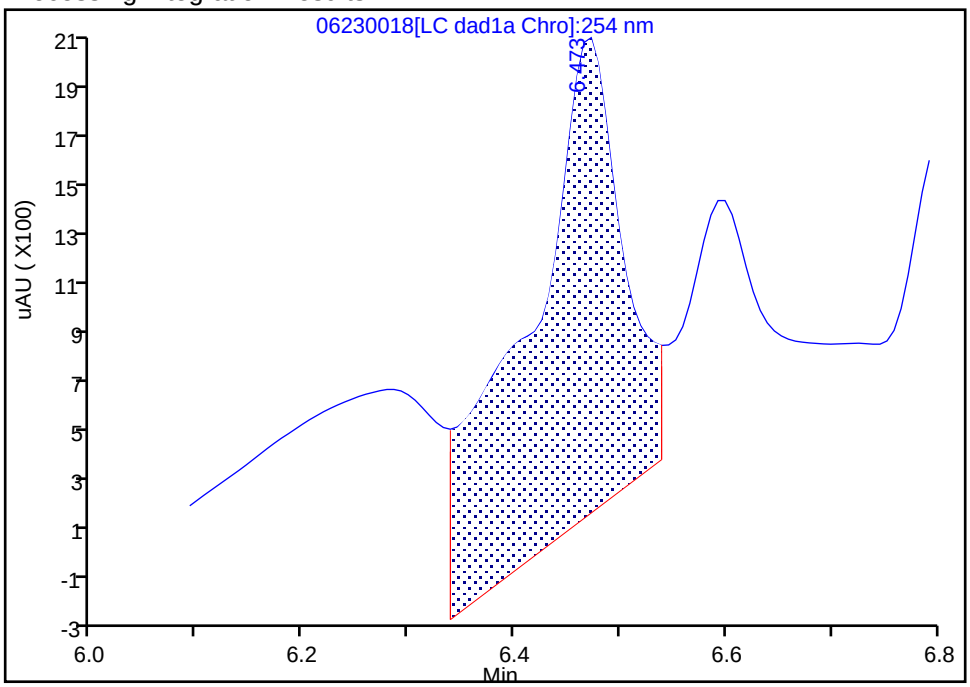
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230018.d				
Injection Date:	23-Jun-2023 20:34:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

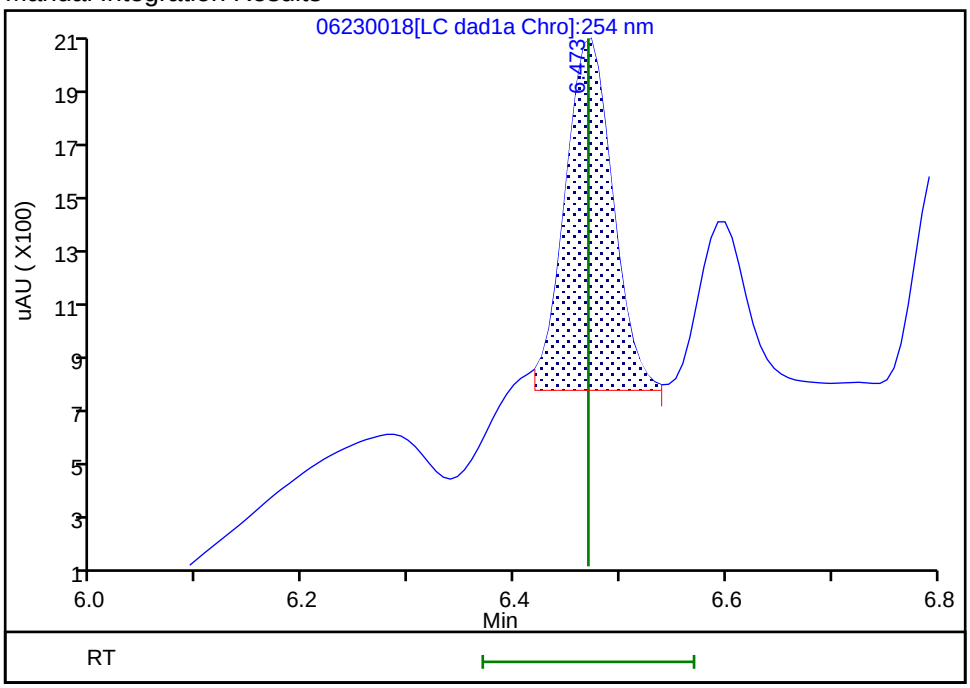
Processing Integration Results

RT: 6.47
Area: 12448
Amount: 0.050881
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 3897
Amount: 0.019411
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:02:09 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

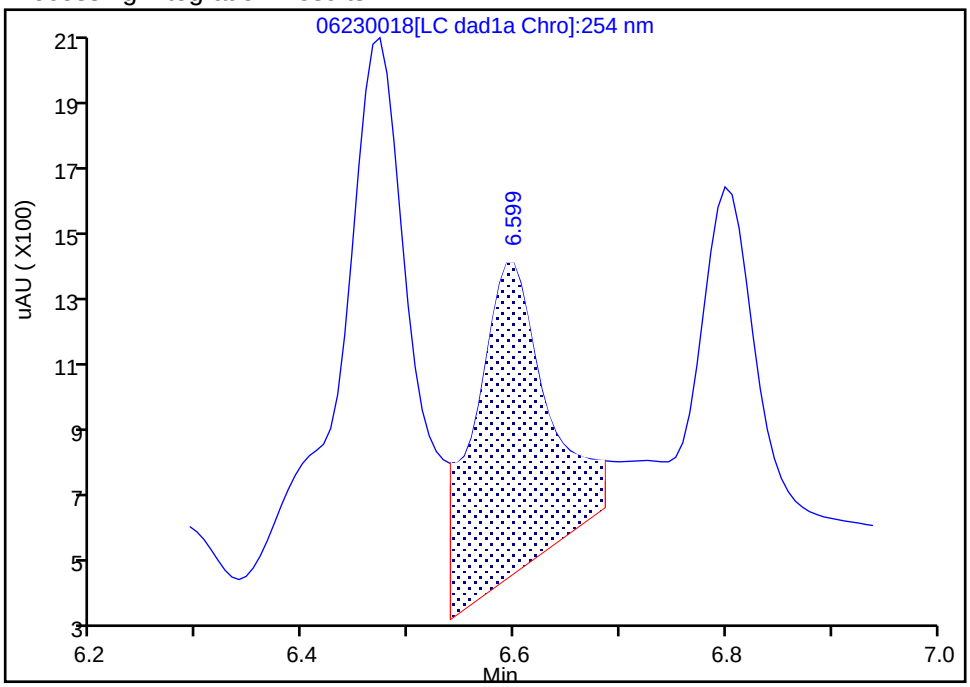
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230018.d				
Injection Date:	23-Jun-2023 20:34:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

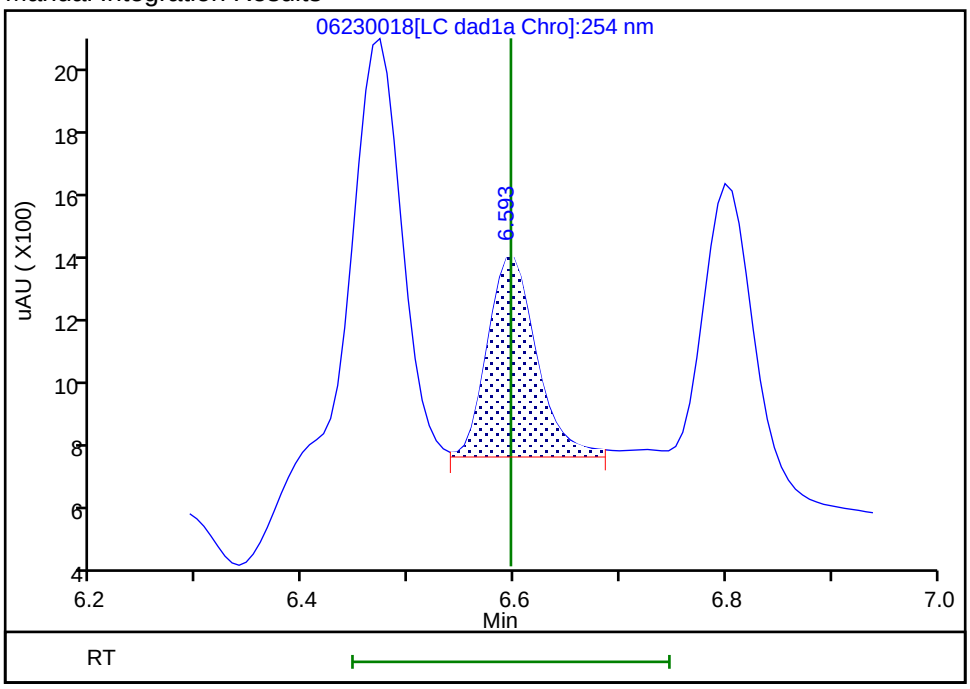
Processing Integration Results

RT: 6.60
Area: 4371
Amount: 0.039965
Amount Units: ug/mL



Manual Integration Results

RT: 6.59
Area: 1960
Amount: 0.020795
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:02:06 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

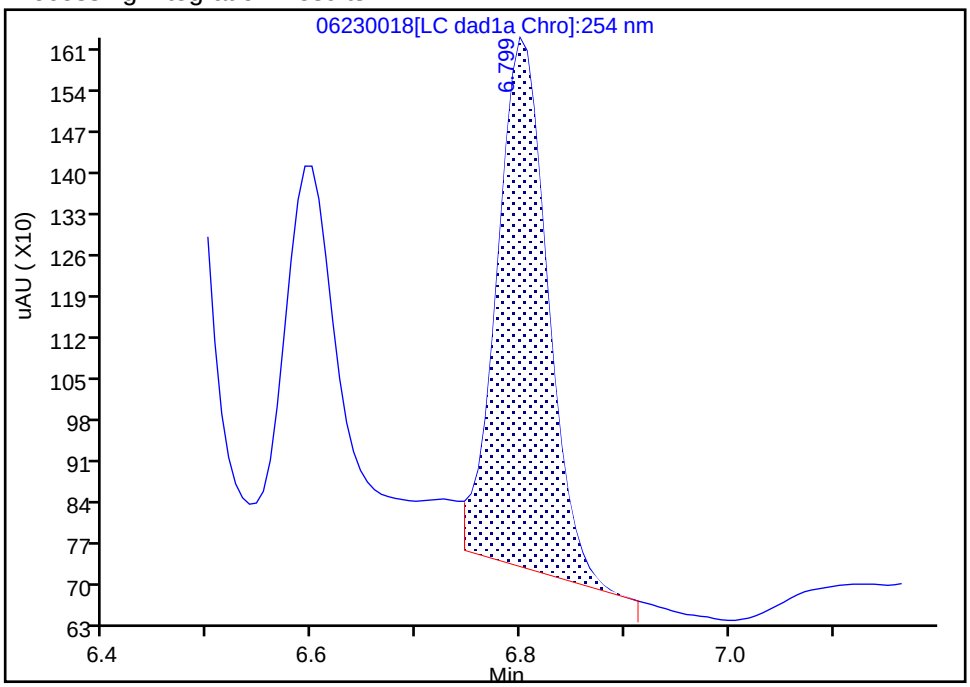
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230018.d				
Injection Date:	23-Jun-2023 20:34:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

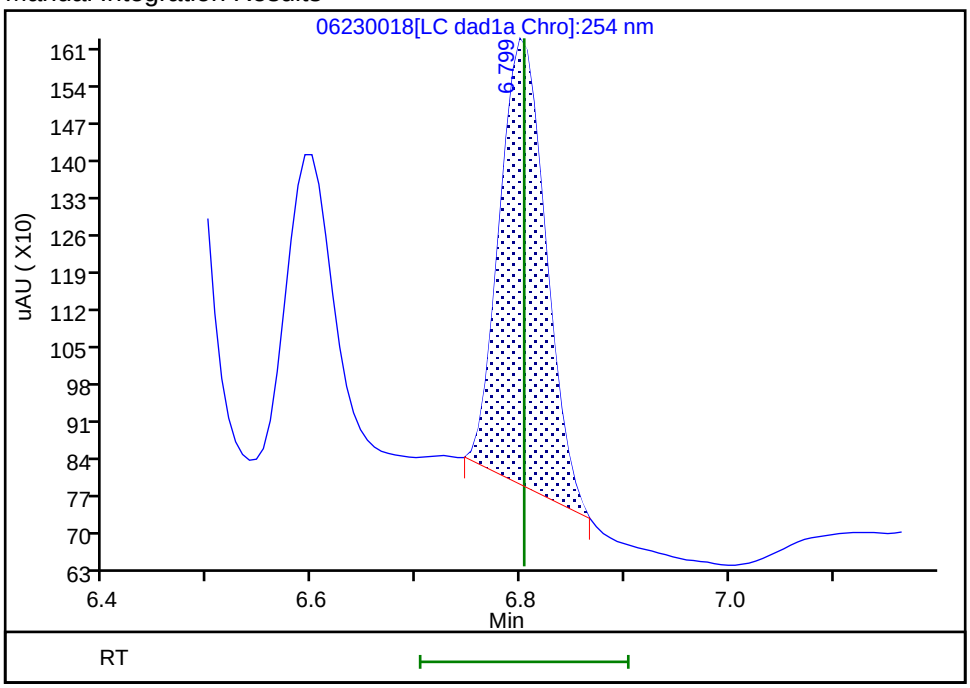
Processing Integration Results

RT: 6.80
Area: 3071
Amount: 0.020912
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 2620
Amount: 0.018132
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:02:11 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

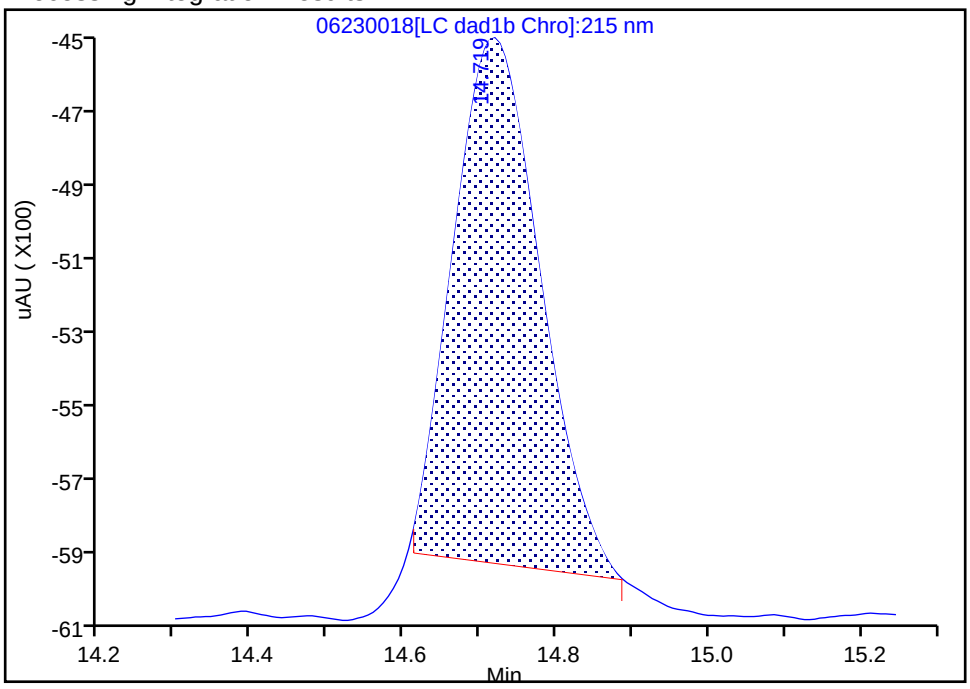
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230018.d				
Injection Date:	23-Jun-2023 20:34:25	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1C, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

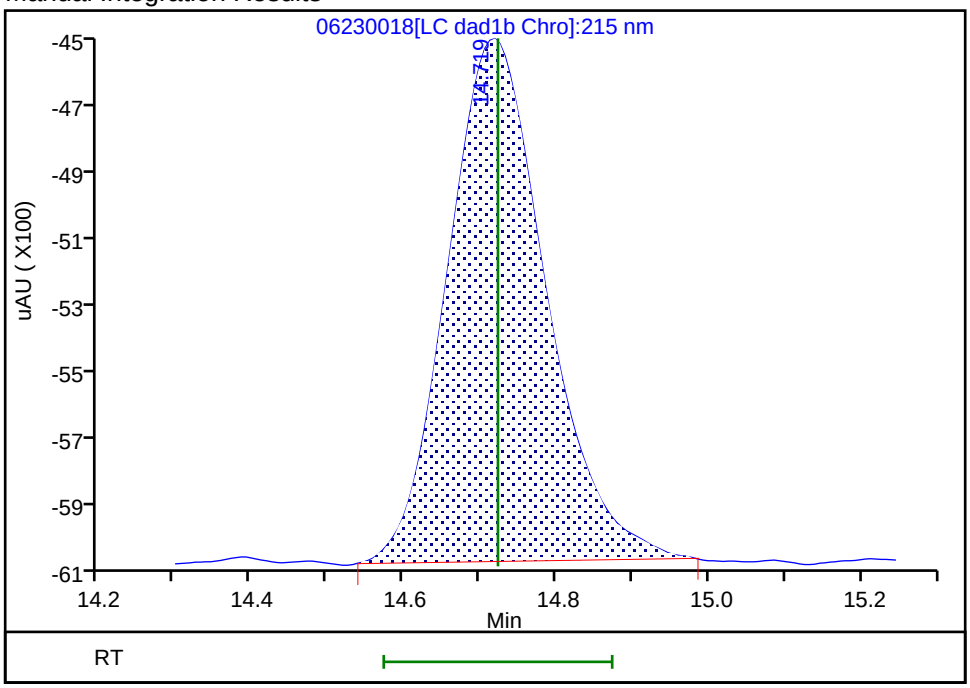
Processing Integration Results

RT: 14.72
Area: 10960
Amount: 0.155528
Amount Units: ug/mL



Manual Integration Results

RT: 14.72
Area: 13637
Amount: 0.189356
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:02:17 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230019.D
Lims ID: IC INT/DMT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 23-Jun-2023 20:57:20 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT/DMT 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:51 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 21:21:44

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.474	6.470	0.004	2190	0.0100	0.0109	M
4 HMX	1	6.601	6.597	0.004	1048	0.0100	0.0111	M
6 DNX	1	6.801	6.803	-0.002	1412	0.0100	0.009772	M
7 MNX	1	7.241	7.237	0.004	1811	0.0117	0.0131	
8 RDX	1	7.627	7.623	0.004	1225	0.0100	0.0111	
9 2,4,6-Trinitrophenol	1	8.041	8.030	0.011	756	0.0100	0.009709	
$ 10 1,2-Dinitrobenzene	1	8.594	8.590	0.004	1172	0.0100	0.009458	
11 1,3,5-Trinitrobenzene	1	8.714	8.710	0.004	2019	0.0100	0.009344	
12 1,3-Dinitrobenzene	1	9.334	9.336	-0.002	2901	0.0100	0.009889	
13 Nitrobenzene	1	9.714	9.710	0.004	2020	0.0100	0.0105	
14 3,5-Dinitroaniline	1	9.941	9.943	-0.002	2151	0.0100	0.0101	
15 Tetryl	1	10.081	10.083	-0.002	1546	0.0100	0.009243	
16 Nitroglycerin	2	10.534	10.536	-0.002	6047	0.1000	0.0935	
17 2,4,6-Trinitrotoluene	1	10.974	10.976	-0.002	1918	0.0100	0.009361	
18 4-Amino-2,6-dinitrotoluene	1	11.174	11.170	0.004	1464	0.0100	0.009789	
19 2-Amino-4,6-dinitrotoluene	1	11.421	11.423	-0.002	1950	0.0100	0.0101	
20 2,6-Dinitrotoluene	1	11.574	11.576	-0.002	1373	0.0100	0.009626	
21 2,4-Dinitrotoluene	1	11.741	11.743	-0.002	2941	0.0100	0.0099	
22 o-Nitrotoluene	1	12.567	12.570	-0.003	1291	0.0100	0.0102	
23 p-Nitrotoluene	1	12.994	12.983	0.011	1165	0.0100	0.0106	
24 m-Nitrotoluene	1	13.554	13.556	-0.002	1870	0.0100	0.009849	
25 PETN	2	14.721	14.723	-0.002	7328	0.1000	0.1018	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00077	Amount Added:	1.00	Units: uL
8330 DMT_00013	Amount Added:	0.50	Units: uL

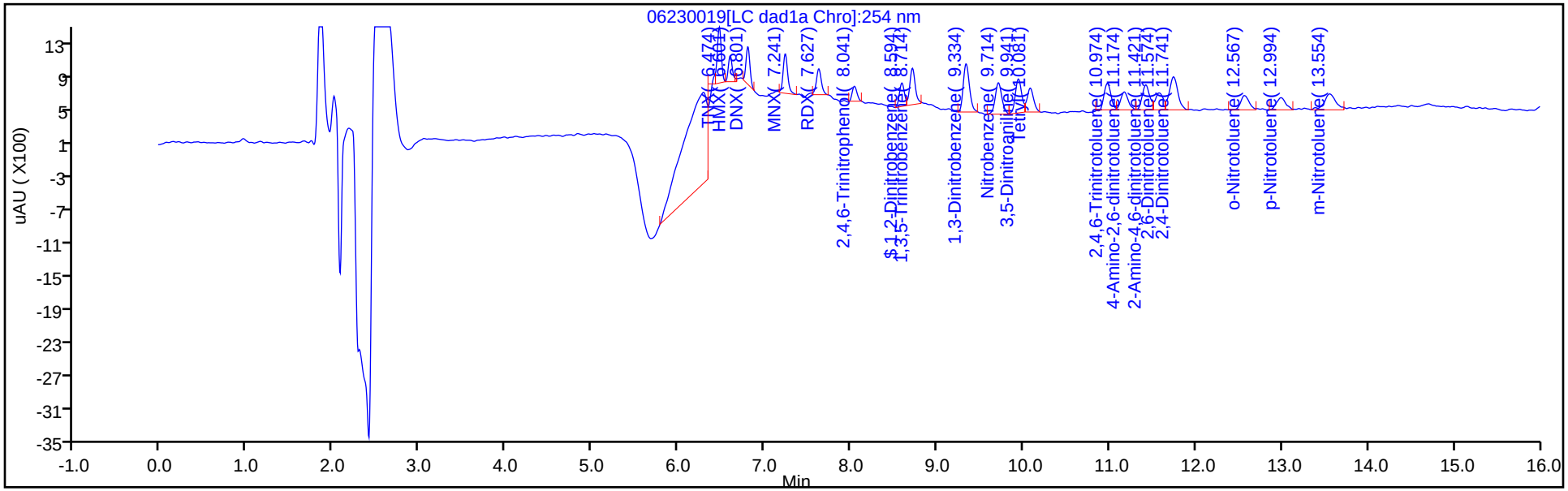
Report Date: 24-Jun-2023 12:55:52 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

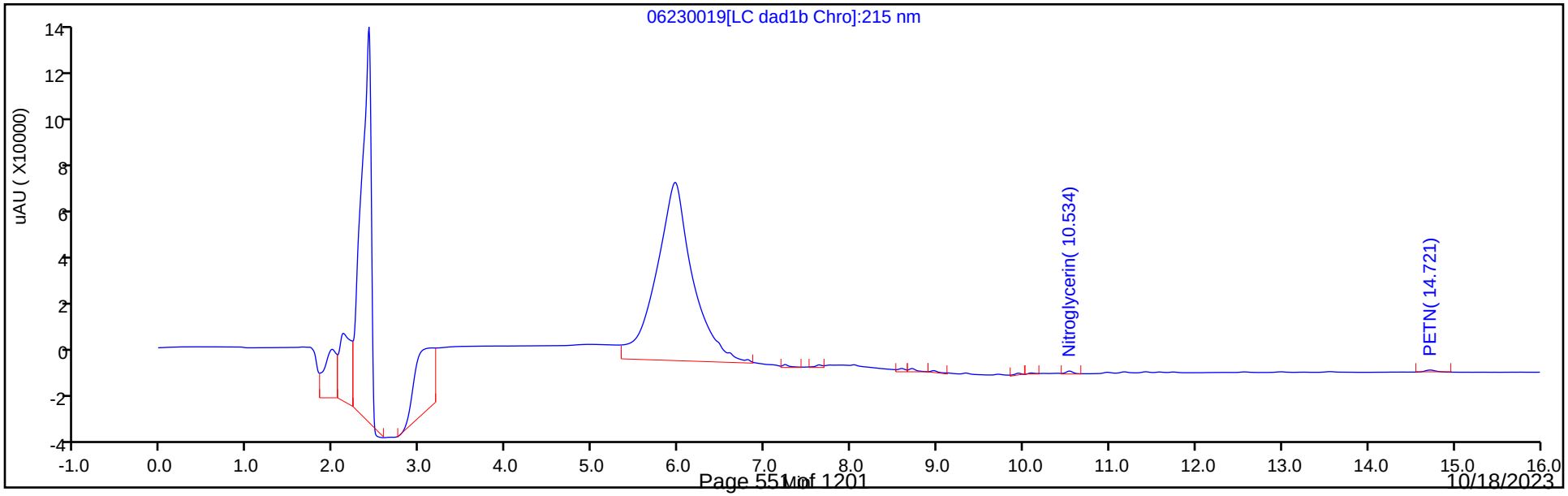
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230019.d

Injection Date:	23-Jun-2023 20:57:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC INT/DMT 1			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

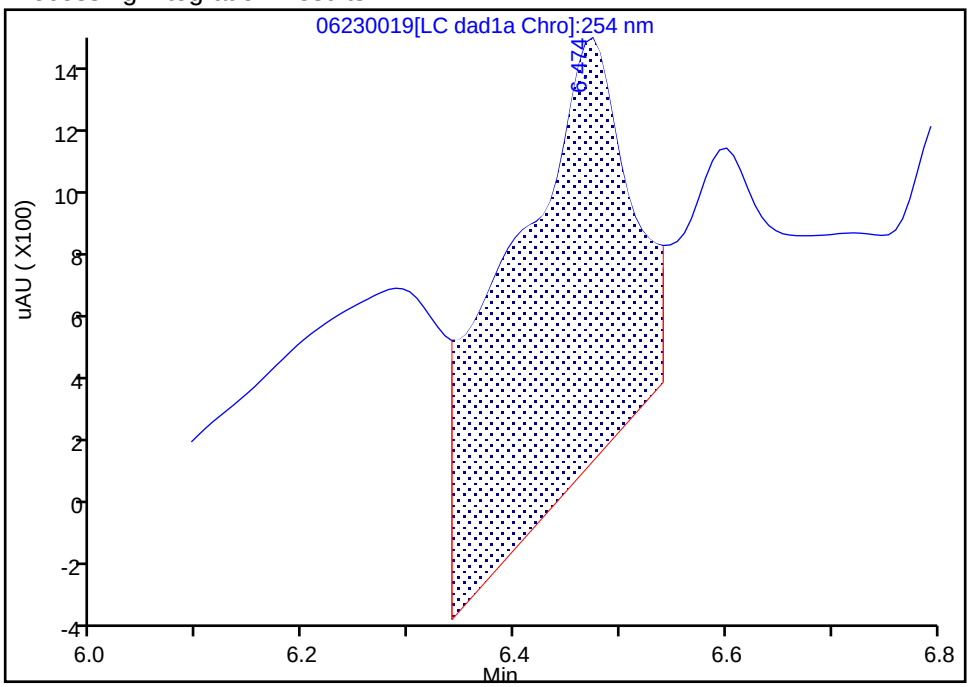
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230019.d				
Injection Date:	23-Jun-2023 20:57:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

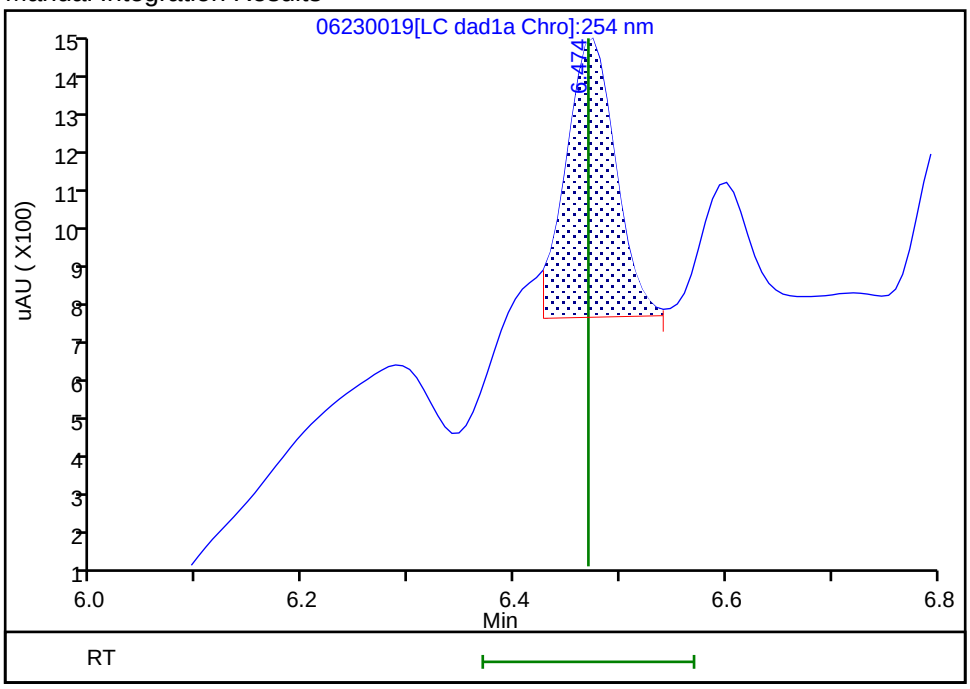
Processing Integration Results

RT: 6.47
Area: 11267
Amount: 0.037393
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 2190
Amount: 0.010908
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:21:33 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

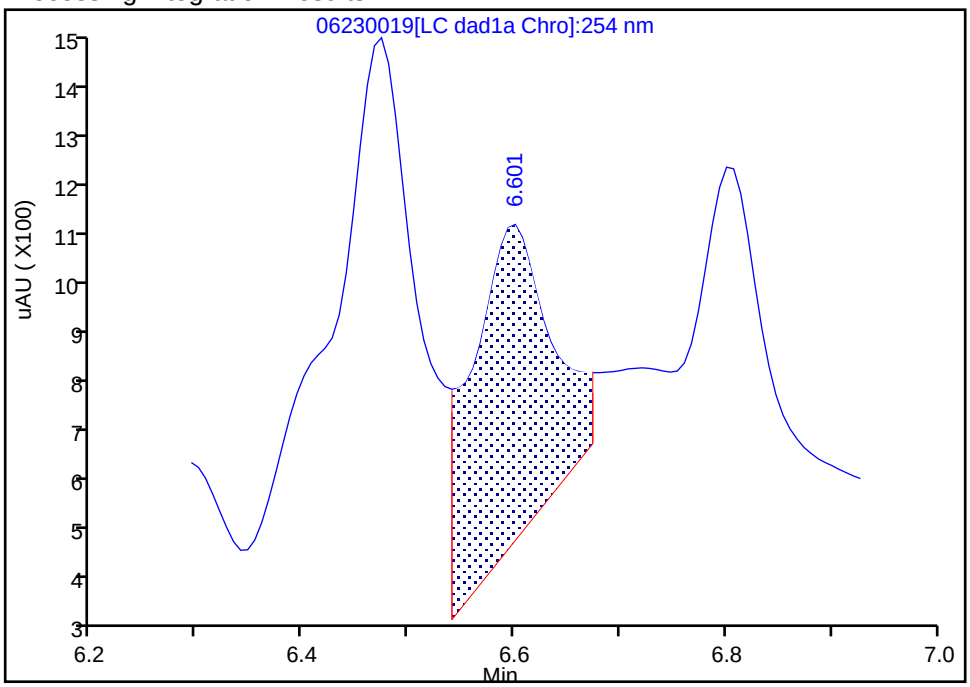
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230019.d
Injection Date: 23-Jun-2023 20:57:20 Instrument ID: CHHPLC_X3
Lims ID: IC INT/DMT 1
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

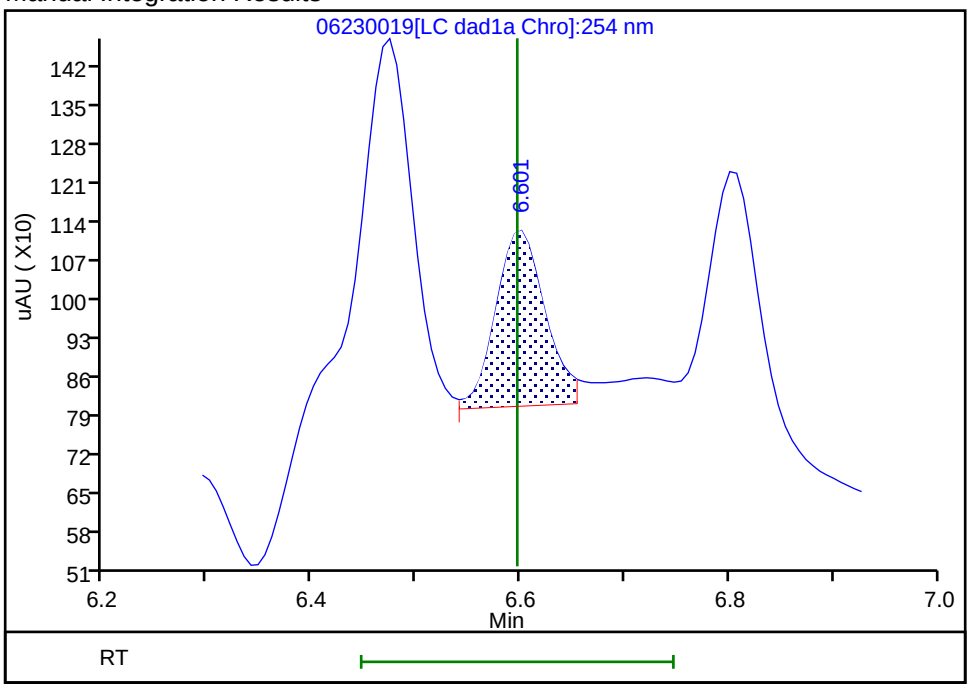
Processing Integration Results

RT: 6.60
Area: 3145
Amount: 0.026753
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 1048
Amount: 0.011119
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:21:35 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

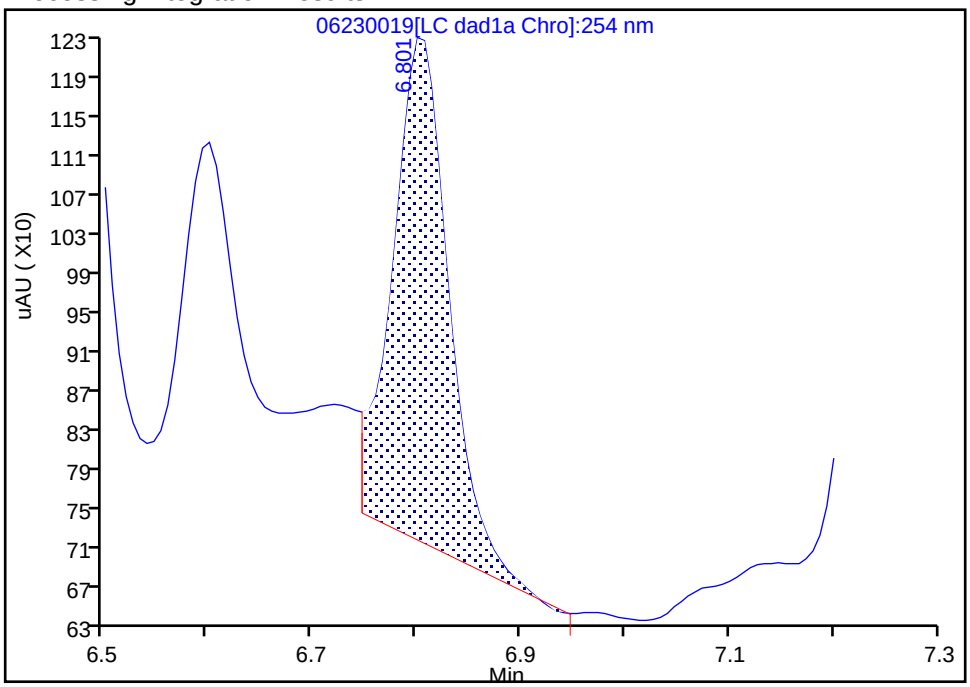
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230019.d				
Injection Date:	23-Jun-2023 20:57:20	Instrument ID:	CHHPLC_X3		
Lims ID:	IC INT/DMT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

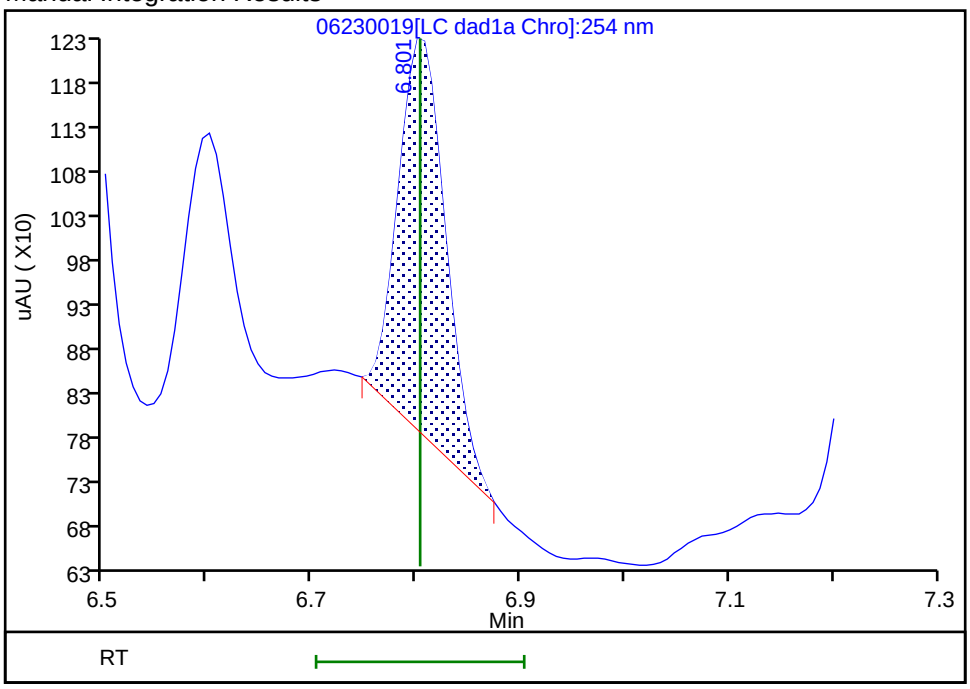
Processing Integration Results

RT: 6.80
Area: 1950
Amount: 0.012960
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 1412
Amount: 0.009772
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:21:40 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

Calibration / TNX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

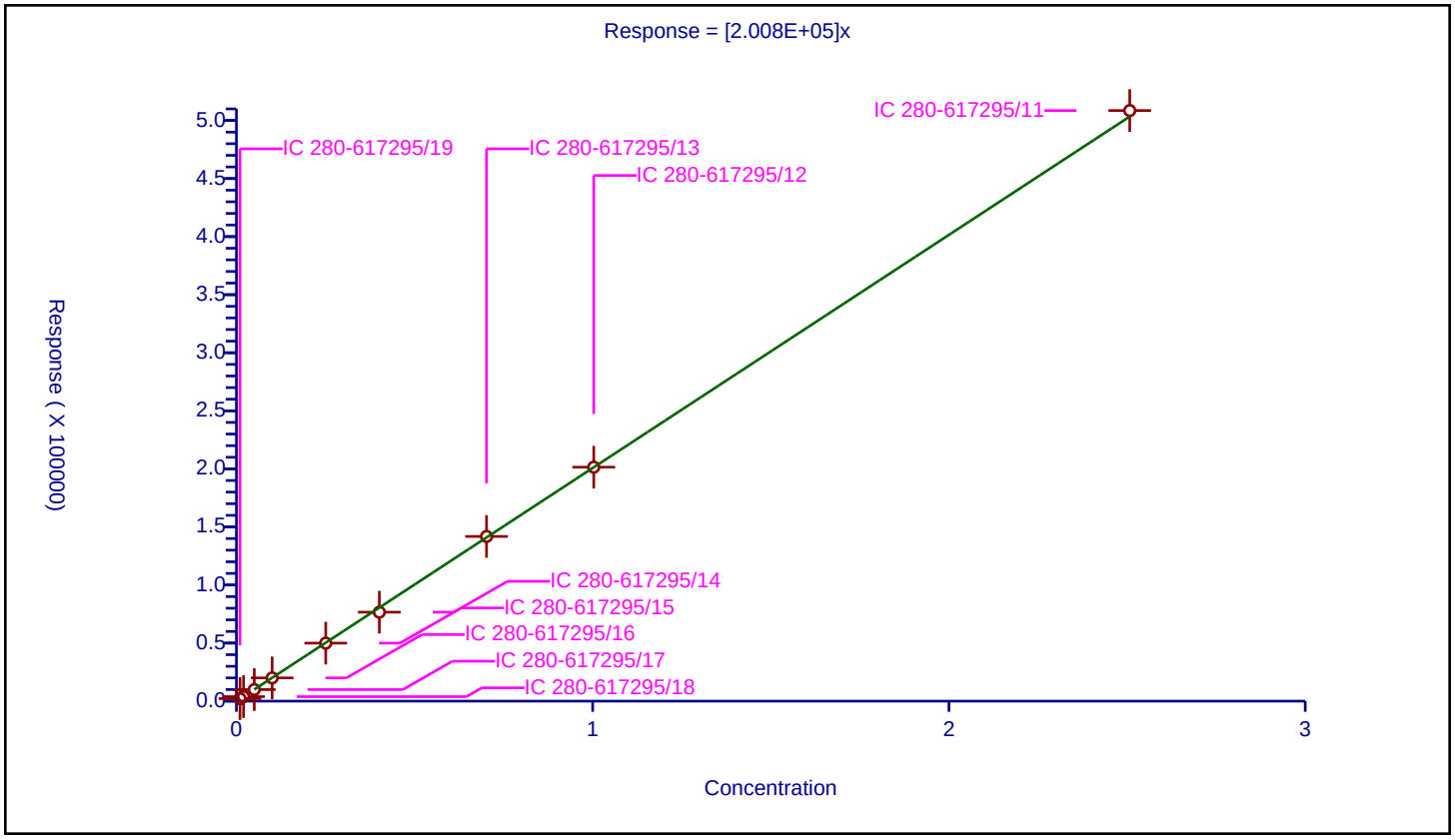
Curve Coefficients

Intercept:	0
Slope:	2.008E+05

Error Coefficients

Standard Error:	2320
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01003	2190.0			218344.965105	Y
2	IC 280-617295/18	0.02006	3897.0			194267.198405	Y
3	IC 280-617295/17	0.05015	9975.0			198903.29013	Y
4	IC 280-617295/16	0.1003	20003.0			199431.704885	Y
5	IC 280-617295/15	0.25075	49970.0			199282.153539	Y
6	IC 280-617295/14	0.4012	76609.0			190949.651047	Y
7	IC 280-617295/13	0.7021	141821.0			201995.442245	Y
8	IC 280-617295/12	1.003	201466.0			200863.409771	Y
9	IC 280-617295/11	2.5075	508547.0			202810.368893	Y



10/18/2023
8:21 PM

Calibration / HMX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

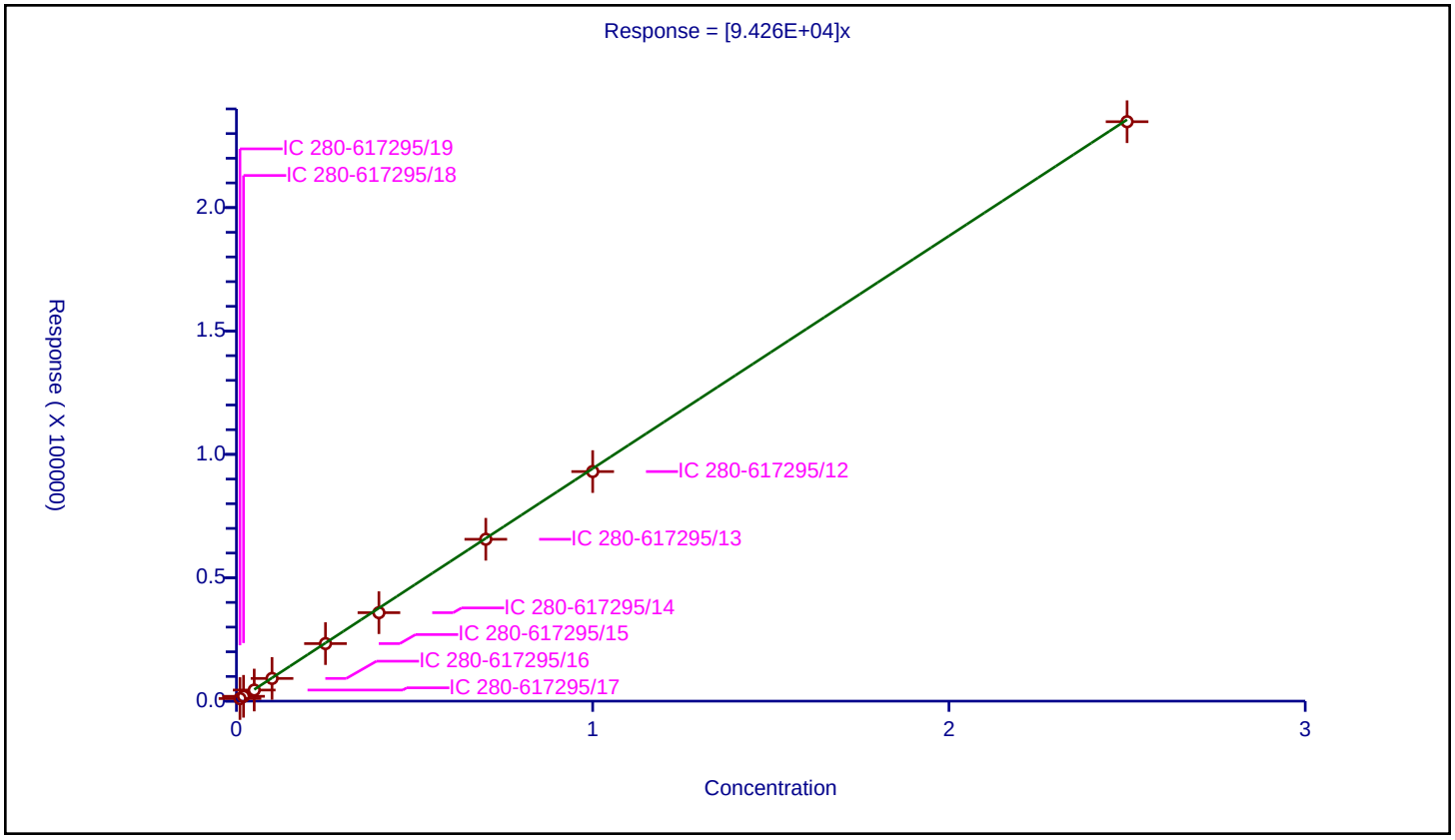
Curve Coefficients

Intercept:	0
Slope:	9.426E+04

Error Coefficients

Standard Error:	862
Relative Standard Error:	4.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1048.0			104800.0	Y
2	IC 280-617295/18	0.02	1960.0			98000.0	Y
3	IC 280-617295/17	0.05	4496.0			89920.0	Y
4	IC 280-617295/16	0.1	9201.0			92010.0	Y
5	IC 280-617295/15	0.25	23321.0			93284.0	Y
6	IC 280-617295/14	0.4	35849.0			89622.5	Y
7	IC 280-617295/13	0.7	65593.0			93704.285714	Y
8	IC 280-617295/12	1.0	93035.0			93035.0	Y
9	IC 280-617295/11	2.5	234806.0			93922.4	Y



10/18/2023
8:21 PM

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

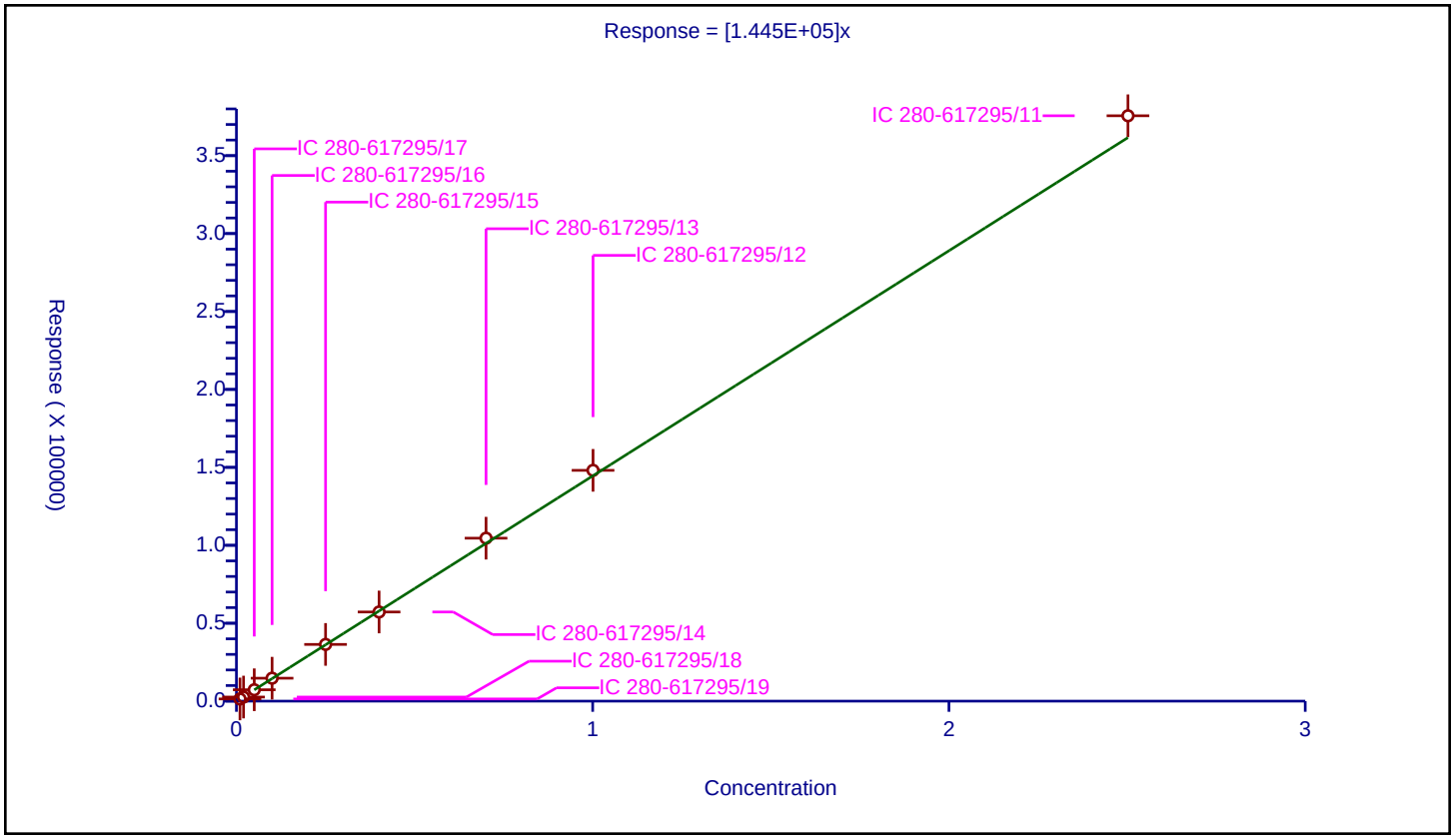
Curve Coefficients

Intercept:	0
Slope:	1.445E+05

Error Coefficients

Standard Error:	5240
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01001	1412.0			141058.941059	Y
2	IC 280-617295/18	0.02002	2620.0			130869.130869	Y
3	IC 280-617295/17	0.05005	7299.0			145834.165834	Y
4	IC 280-617295/16	0.1001	14726.0			147112.887113	Y
5	IC 280-617295/15	0.25025	36397.0			145442.557443	Y
6	IC 280-617295/14	0.4004	57208.0			142877.122877	Y
7	IC 280-617295/13	0.7007	104556.0			149216.497788	Y
8	IC 280-617295/12	1.001	148083.0			147935.064935	Y
9	IC 280-617295/11	2.5025	375597.0			150088.711289	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

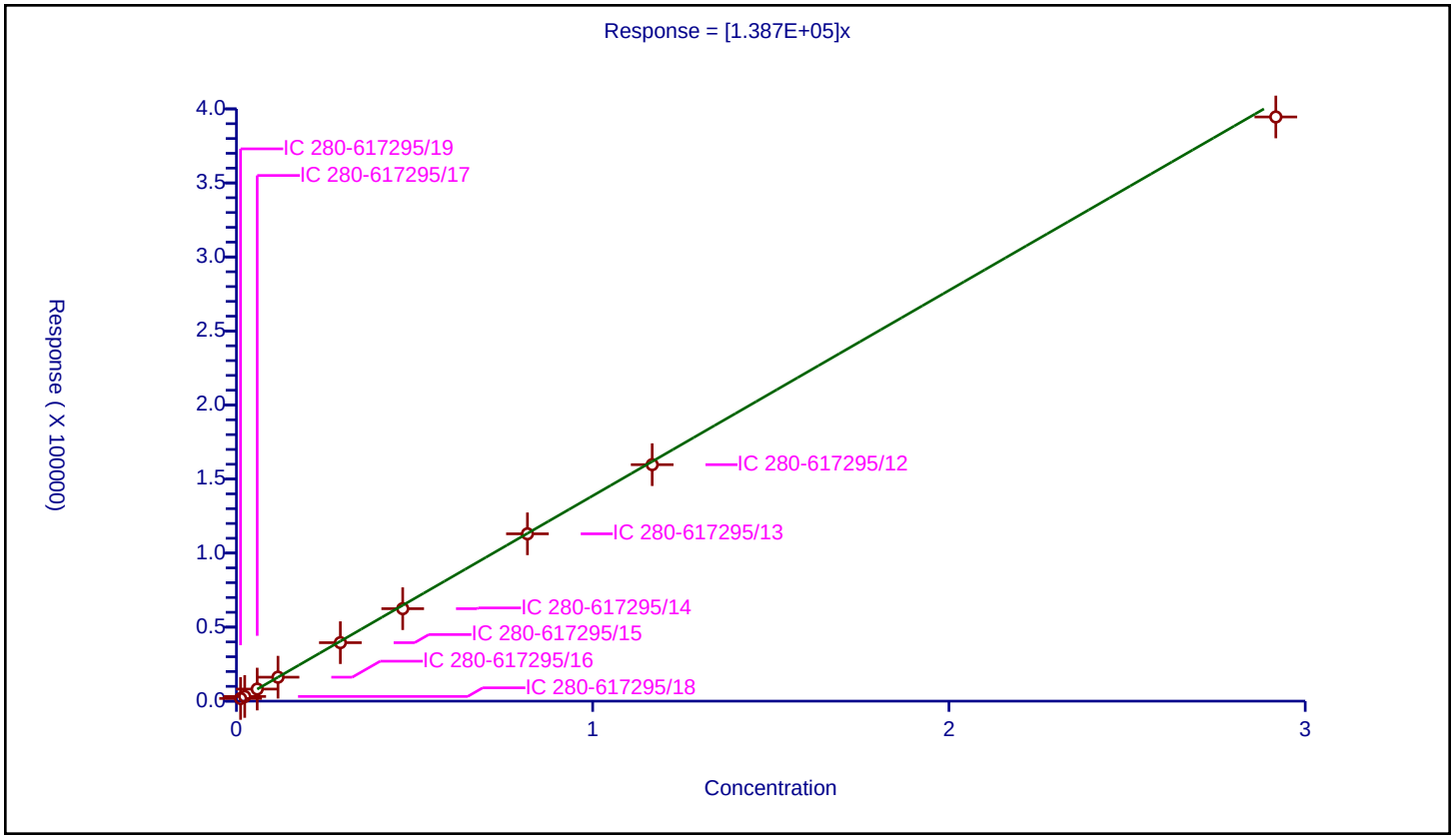
Curve Coefficients

Intercept:	0
Slope:	1.387E+05

Error Coefficients

Standard Error:	3750
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01167	1811.0			155184.233076	Y
2	IC 280-617295/18	0.02334	3155.0			135175.664096	Y
3	IC 280-617295/17	0.05835	8151.0			139691.51671	Y
4	IC 280-617295/16	0.1167	16173.0			138586.118252	Y
5	IC 280-617295/15	0.29175	39495.0			135372.750643	Y
6	IC 280-617295/14	0.4668	62440.0			133761.782348	Y
7	IC 280-617295/13	0.8169	113007.0			138336.393683	Y
8	IC 280-617295/12	1.167	159710.0			136855.184233	Y
9	IC 280-617295/11	2.9175	394545.0			135233.933162	Y



Calibration / RDX

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

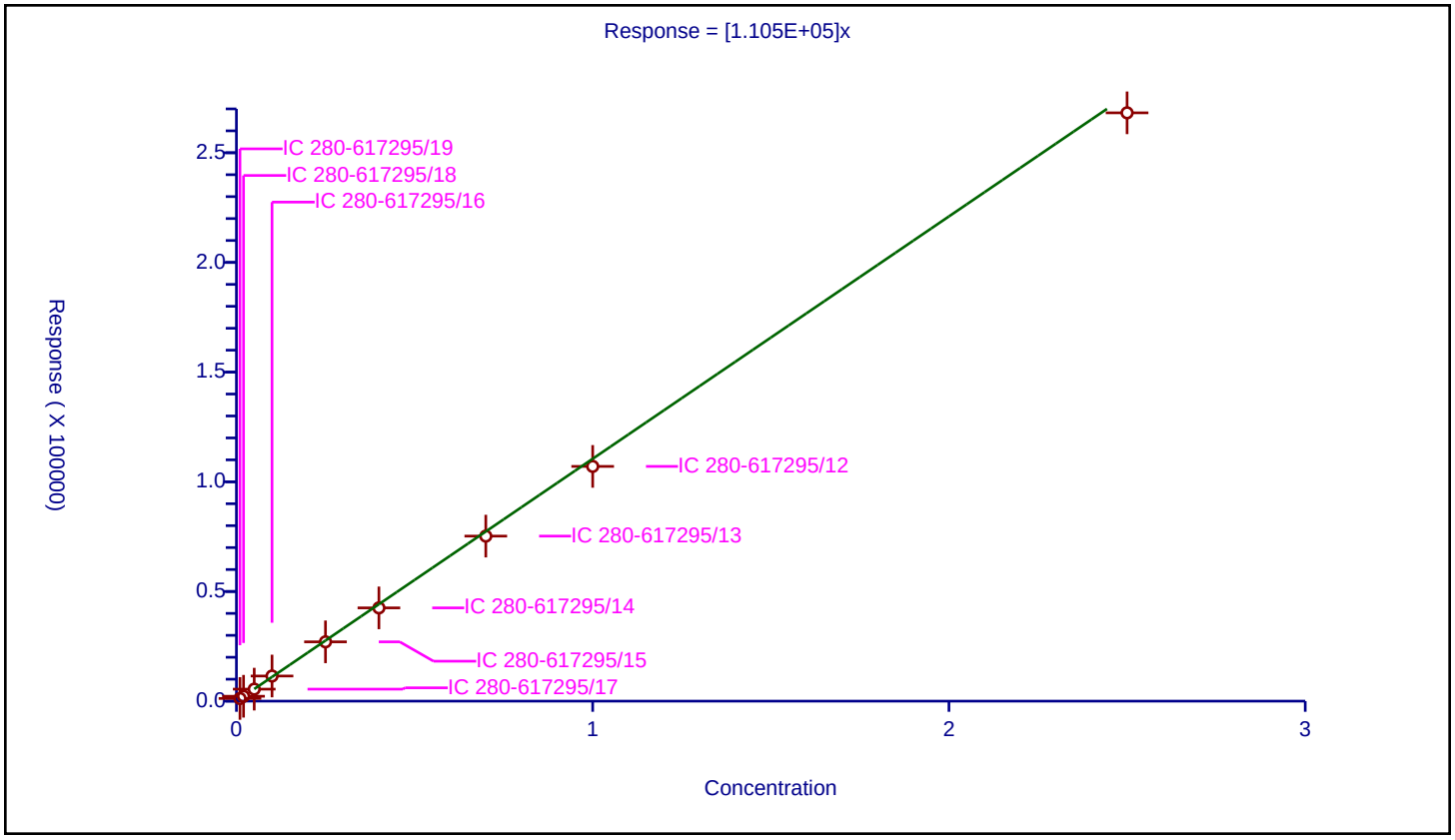
Curve Coefficients

Intercept:	0
Slope:	1.105E+05

Error Coefficients

Standard Error:	3250
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1225.0			122500.0	Y
2	IC 280-617295/18	0.02	2234.0			111700.0	Y
3	IC 280-617295/17	0.05	5472.0			109440.0	Y
4	IC 280-617295/16	0.1	11457.0			114570.0	Y
5	IC 280-617295/15	0.25	27039.0			108156.0	Y
6	IC 280-617295/14	0.4	42514.0			106285.0	Y
7	IC 280-617295/13	0.7	75238.0			107482.857143	Y
8	IC 280-617295/12	1.0	107019.0			107019.0	Y
9	IC 280-617295/11	2.5	268207.0			107282.8	Y



10/18/2023
8:21 PM

Calibration / 2,4,6-Trinitrophenol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

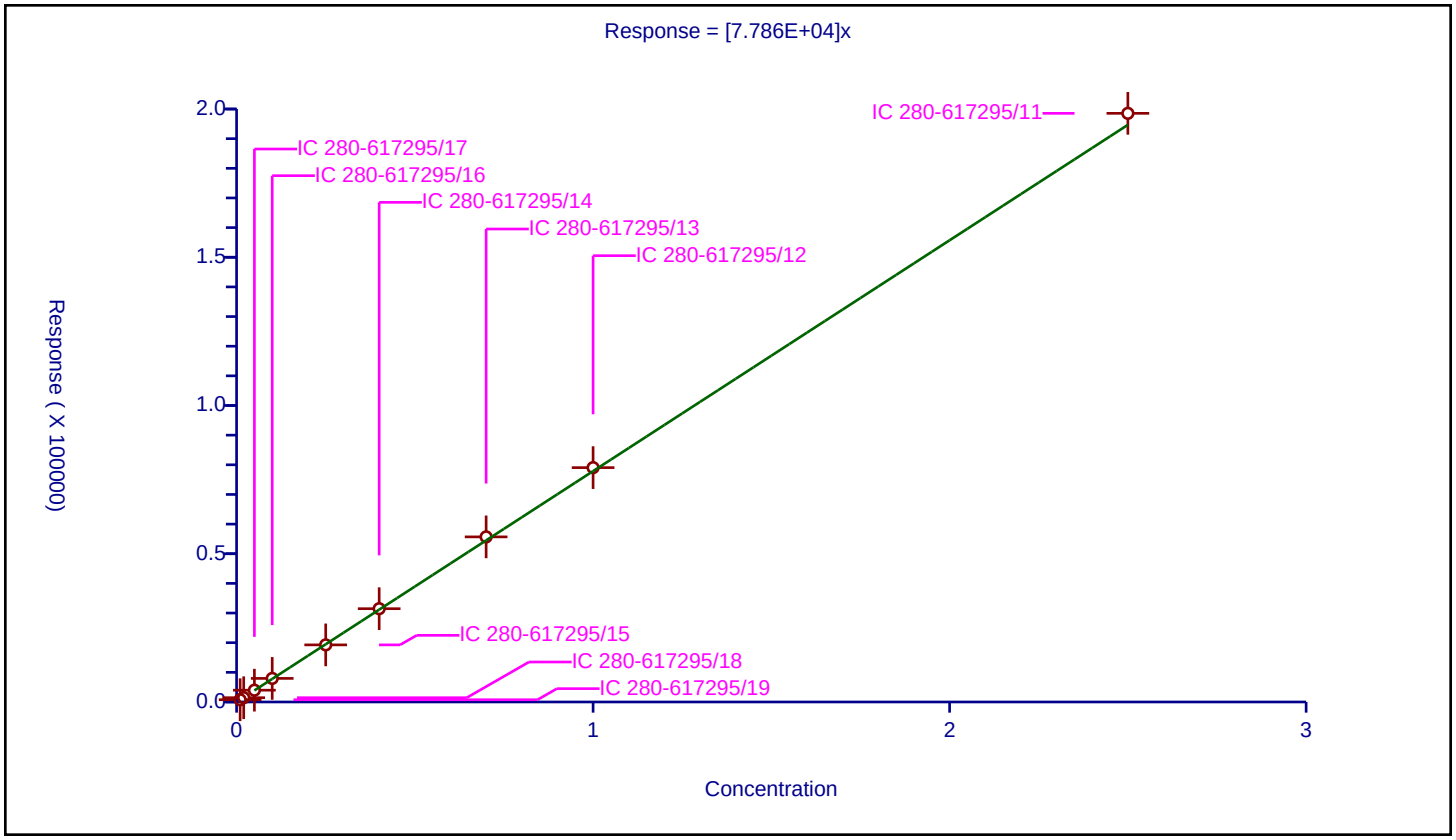
Curve Coefficients

Intercept:	0
Slope:	7.786E+04

Error Coefficients

Standard Error:	1500
Relative Standard Error:	3.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	756.0			75600.0	Y
2	IC 280-617295/18	0.02	1447.0			72350.0	Y
3	IC 280-617295/17	0.05	3979.0			79580.0	Y
4	IC 280-617295/16	0.1	7951.0			79510.0	Y
5	IC 280-617295/15	0.25	19262.0			77048.0	Y
6	IC 280-617295/14	0.4	31468.0			78670.0	Y
7	IC 280-617295/13	0.7	55684.0			79548.571429	Y
8	IC 280-617295/12	1.0	79045.0			79045.0	Y
9	IC 280-617295/11	2.5	198541.0			79416.4	Y



10/18/2023
8:21 PM

Calibration / 1,2-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

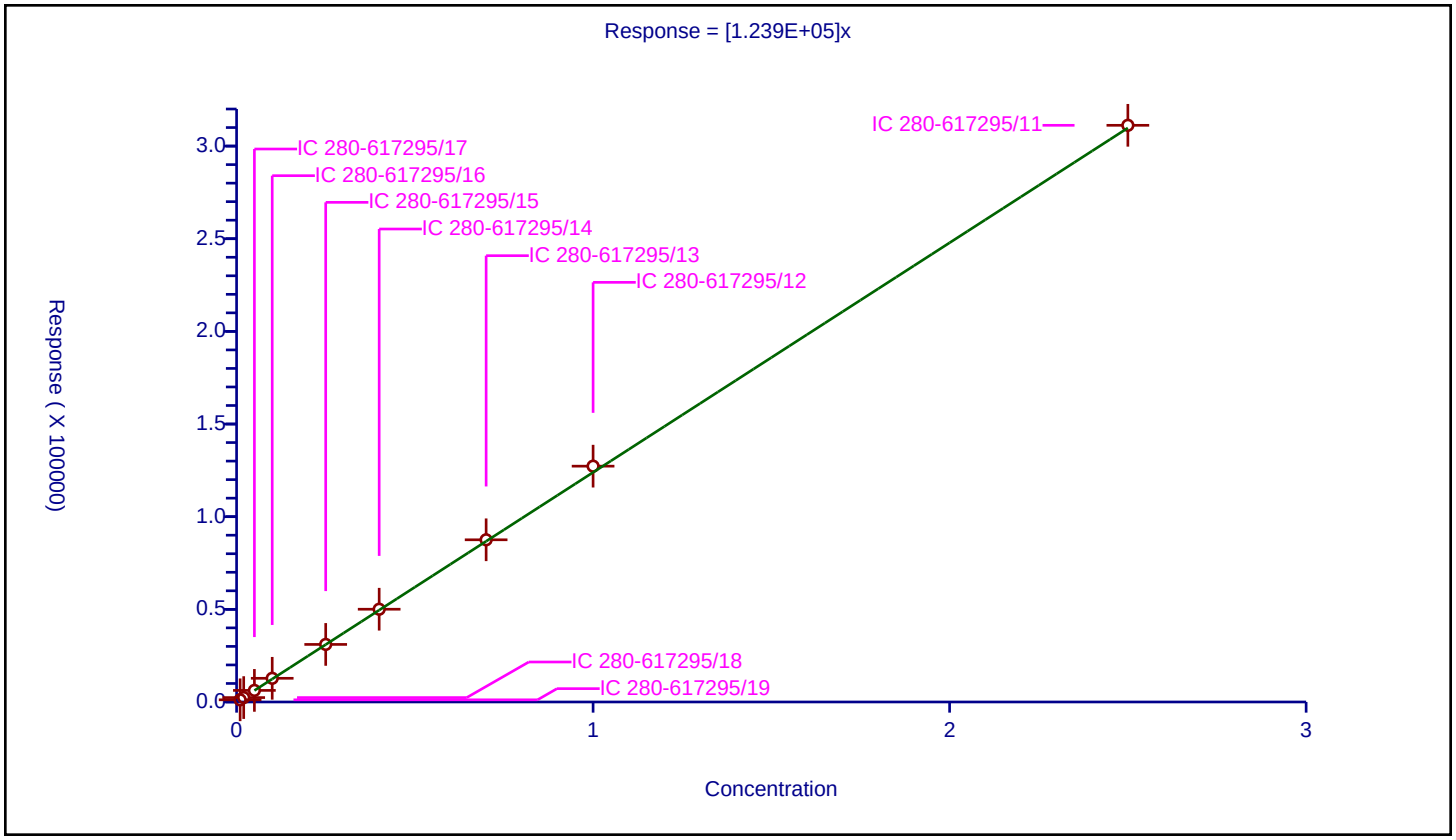
Curve Coefficients

Intercept:	0
Slope:	1.239E+05

Error Coefficients

Standard Error:	1340
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1172.0			117200.0	Y
2	IC 280-617295/18	0.02	2379.0			118950.0	Y
3	IC 280-617295/17	0.05	6250.0			125000.0	Y
4	IC 280-617295/16	0.1	12783.0			127830.0	Y
5	IC 280-617295/15	0.25	31068.0			124272.0	Y
6	IC 280-617295/14	0.4	50062.0			125155.0	Y
7	IC 280-617295/13	0.7	87532.0			125045.714286	Y
8	IC 280-617295/12	1.0	127262.0			127262.0	Y
9	IC 280-617295/11	2.5	311208.0			124483.2	Y



10/18/2023
8:21 PM

Calibration / 1,3,5-Trinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

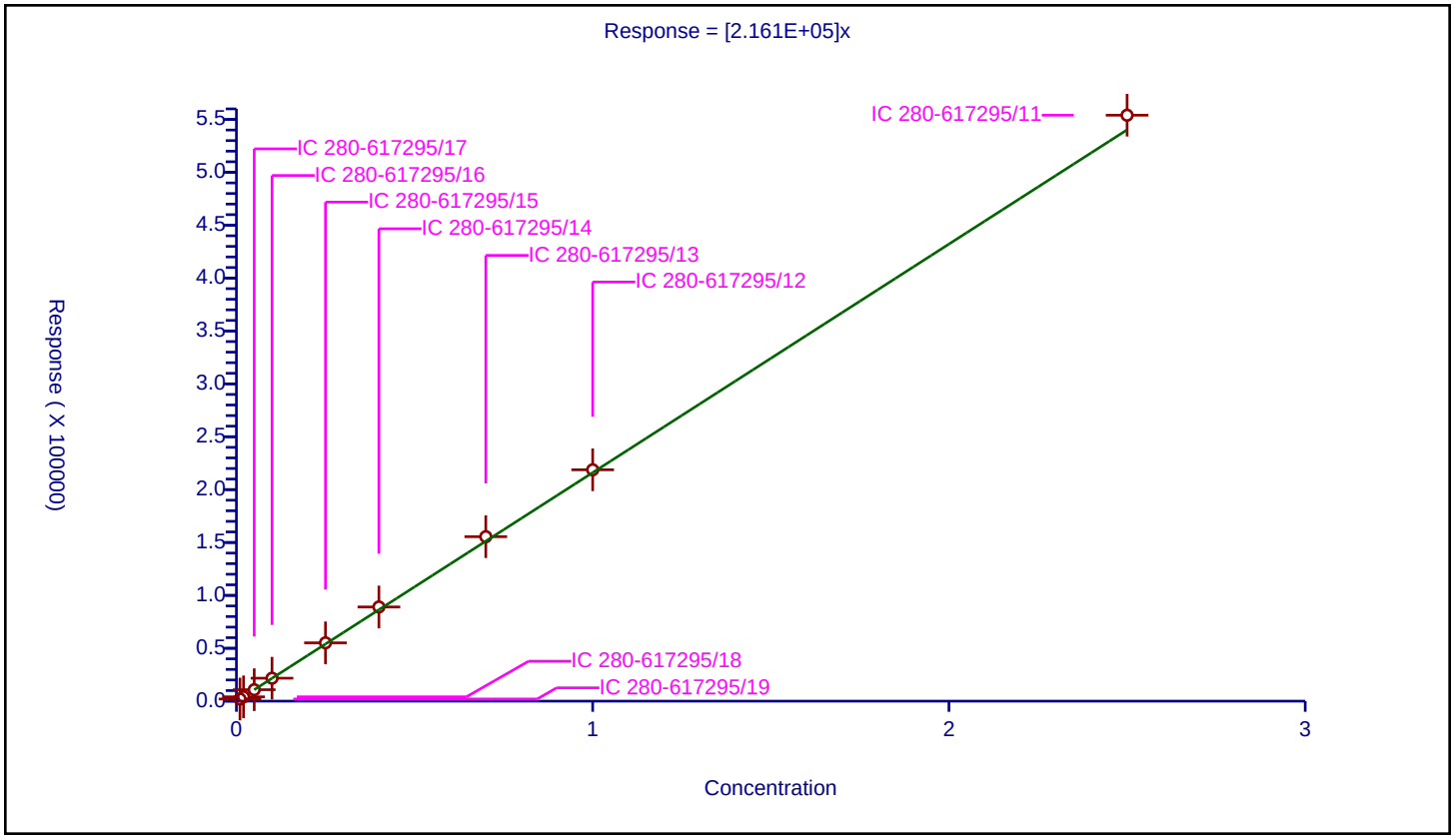
Curve Coefficients

Intercept:	0
Slope:	2.161E+05

Error Coefficients

Standard Error:	5300
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	2019.0			201900.0	Y
2	IC 280-617295/18	0.02	4083.0			204150.0	Y
3	IC 280-617295/17	0.05	10805.0			216100.0	Y
4	IC 280-617295/16	0.1	21684.0			216840.0	Y
5	IC 280-617295/15	0.25	55138.0			220552.0	Y
6	IC 280-617295/14	0.4	89063.0			222657.5	Y
7	IC 280-617295/13	0.7	155494.0			222134.285714	Y
8	IC 280-617295/12	1.0	218769.0			218769.0	Y
9	IC 280-617295/11	2.5	554012.0			221604.8	Y



10/18/2023
8:21 PM

Calibration / 1,3-Dinitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

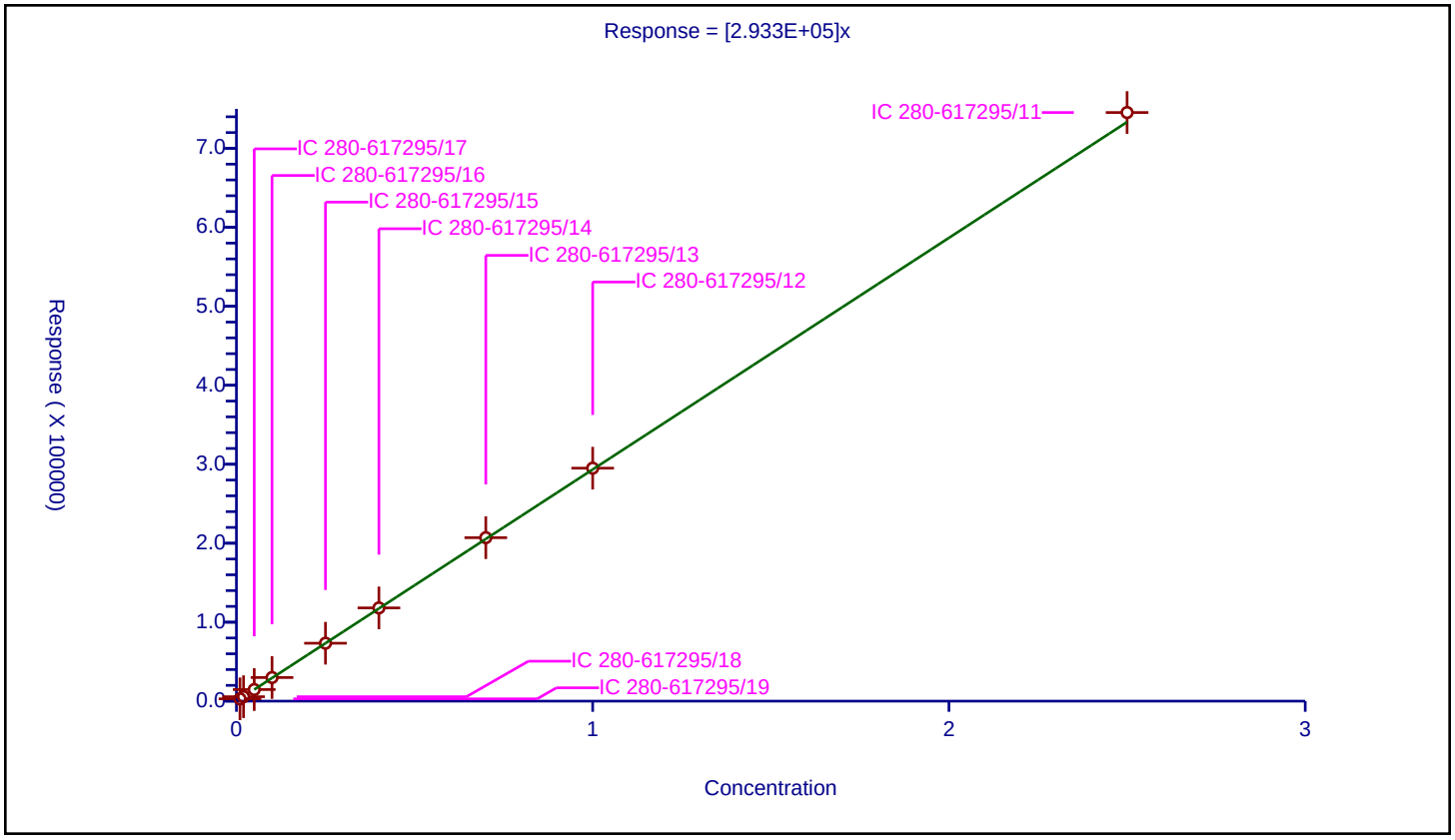
Curve Coefficients

Intercept:	0
Slope:	2.933E+05

Error Coefficients

Standard Error:	4350
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	2901.0			290100.0	Y
2	IC 280-617295/18	0.02	5599.0			279950.0	Y
3	IC 280-617295/17	0.05	14684.0			293680.0	Y
4	IC 280-617295/16	0.1	29890.0			298900.0	Y
5	IC 280-617295/15	0.25	73356.0			293424.0	Y
6	IC 280-617295/14	0.4	118059.0			295147.5	Y
7	IC 280-617295/13	0.7	207005.0			295721.428571	Y
8	IC 280-617295/12	1.0	295042.0			295042.0	Y
9	IC 280-617295/11	2.5	745400.0			298160.0	Y



10/18/2023
8:21 PM

Calibration / Nitrobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

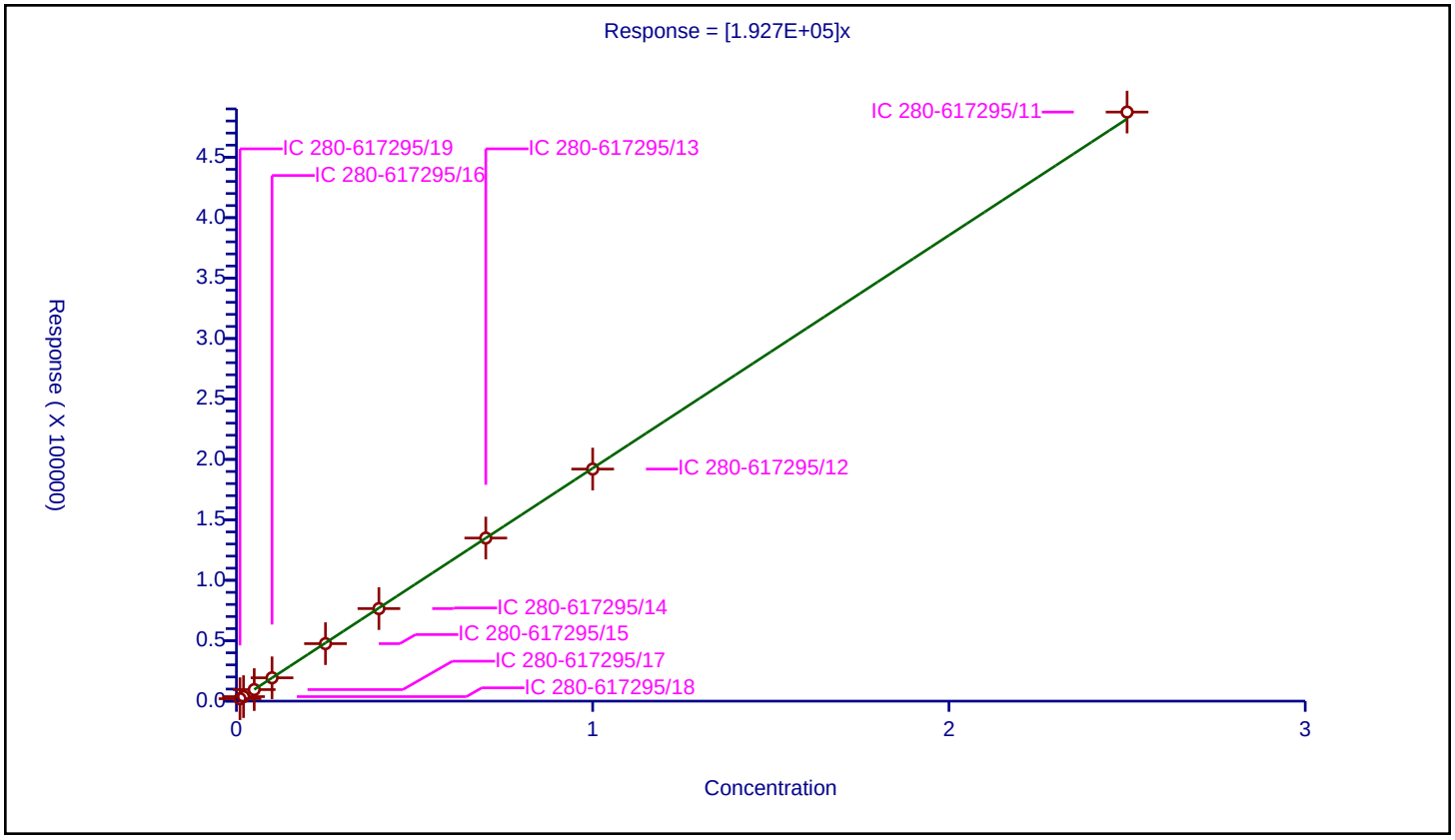
Curve Coefficients

Intercept:	0
Slope:	1.927E+05

Error Coefficients

Standard Error:	2030
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	2020.0			202000.0	Y
2	IC 280-617295/18	0.02	3731.0			186550.0	Y
3	IC 280-617295/17	0.05	9561.0			191220.0	Y
4	IC 280-617295/16	0.1	19309.0			193090.0	Y
5	IC 280-617295/15	0.25	47571.0			190284.0	Y
6	IC 280-617295/14	0.4	76555.0			191387.5	Y
7	IC 280-617295/13	0.7	134942.0			192774.285714	Y
8	IC 280-617295/12	1.0	192007.0			192007.0	Y
9	IC 280-617295/11	2.5	487382.0			194952.8	Y



Calibration / 3,5-Dinitroaniline

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

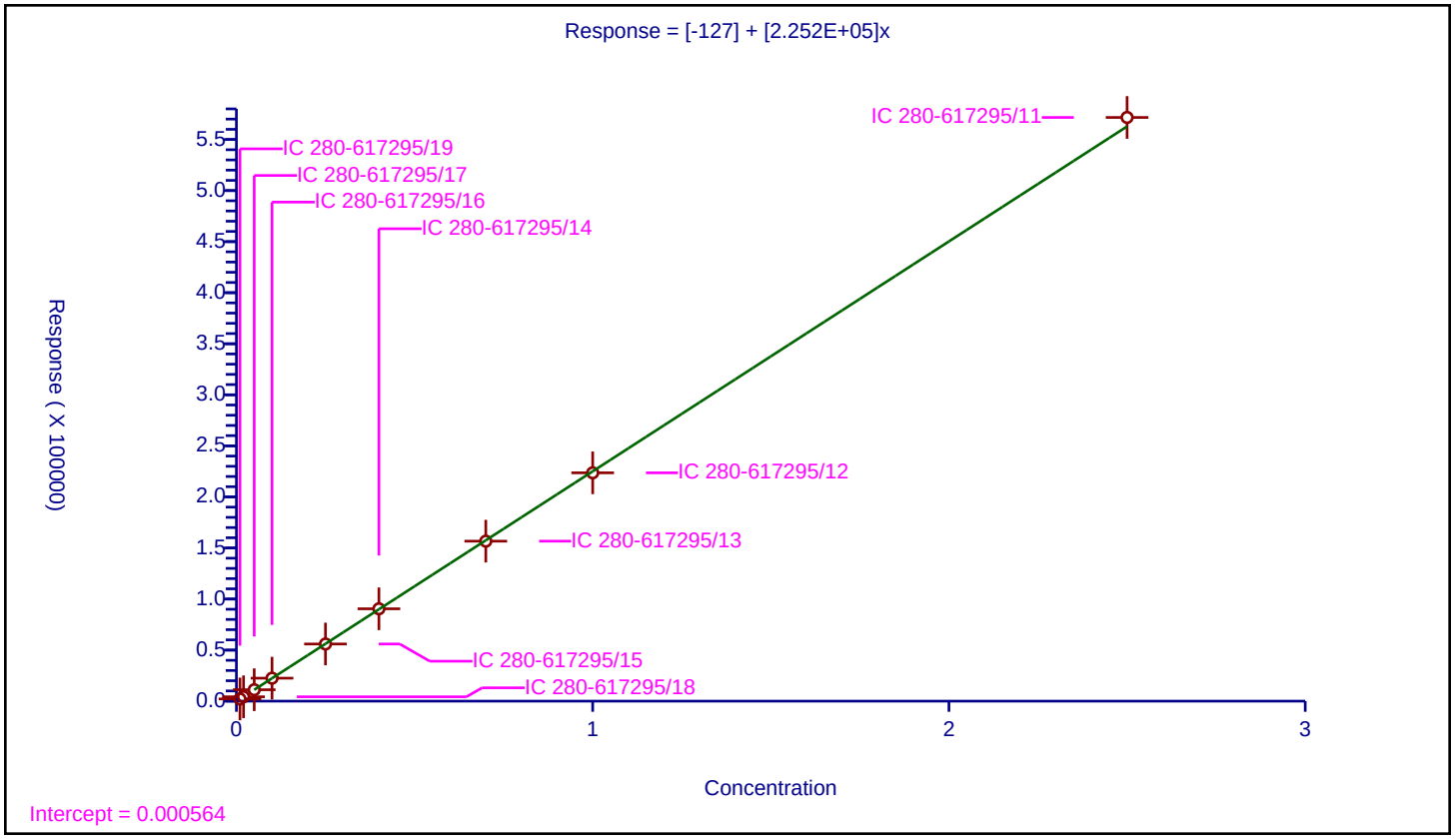
Curve Coefficients

Intercept:	-127
Slope:	2.252E+05

Error Coefficients

Standard Error:	3390
Relative Standard Error:	1.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	2151.0			215100.0	Y
2	IC 280-617295/18	0.02	4262.0			213100.0	Y
3	IC 280-617295/17	0.05	11168.0			223360.0	Y
4	IC 280-617295/16	0.1	22486.0			224860.0	Y
5	IC 280-617295/15	0.25	55971.0			223884.0	Y
6	IC 280-617295/14	0.4	90451.0			226127.5	Y
7	IC 280-617295/13	0.7	156668.0			223811.428571	Y
8	IC 280-617295/12	1.0	223593.0			223593.0	Y
9	IC 280-617295/11	2.5	571603.0			228641.2	Y



Calibration / Tetryl

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

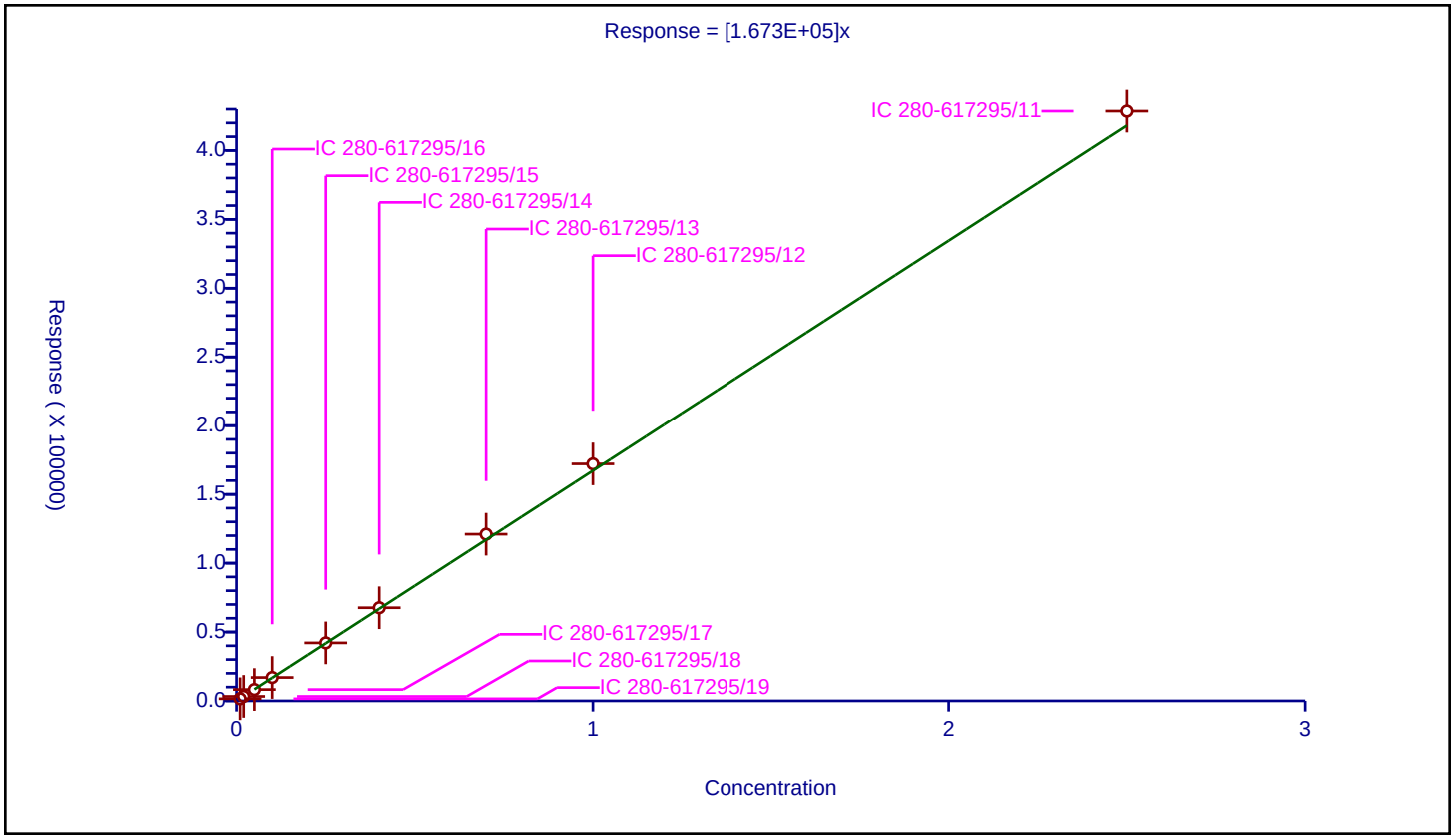
Curve Coefficients

Intercept:	0
Slope:	1.673E+05

Error Coefficients

Standard Error:	4320
Relative Standard Error:	3.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1546.0			154600.0	Y
2	IC 280-617295/18	0.02	3248.0			162400.0	Y
3	IC 280-617295/17	0.05	8232.0			164640.0	Y
4	IC 280-617295/16	0.1	16961.0			169610.0	Y
5	IC 280-617295/15	0.25	42107.0			168428.0	Y
6	IC 280-617295/14	0.4	67629.0			169072.5	Y
7	IC 280-617295/13	0.7	121063.0			172947.142857	Y
8	IC 280-617295/12	1.0	172187.0			172187.0	Y
9	IC 280-617295/11	2.5	428562.0			171424.8	Y



10/18/2023
8:21 PM

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

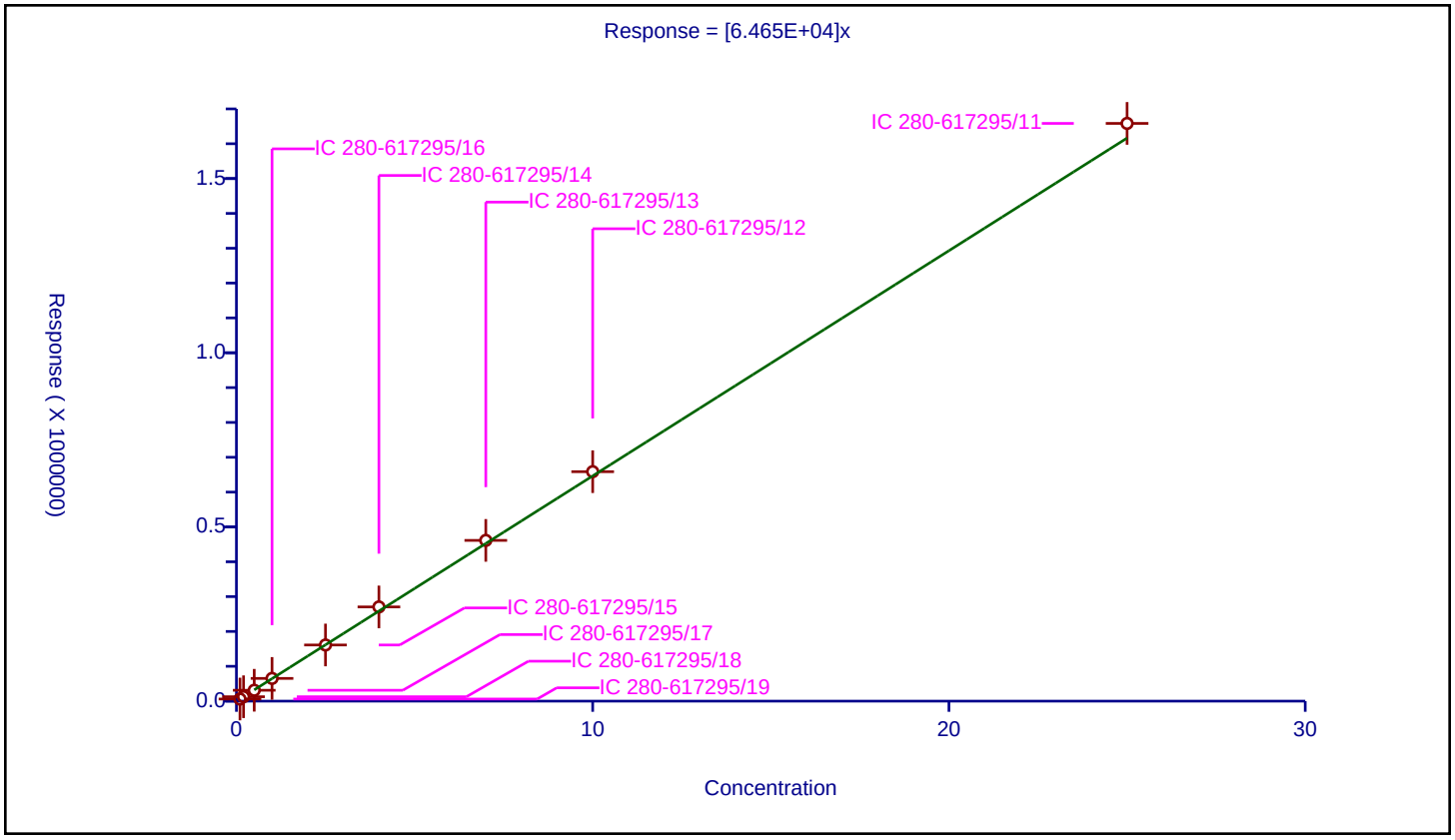
Curve Coefficients

Intercept:	0
Slope:	6.465E+04

Error Coefficients

Standard Error:	16300
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.1	6047.0			60470.0	Y
2	IC 280-617295/18	0.2	12682.0			63410.0	Y
3	IC 280-617295/17	0.5	31254.0			62508.0	Y
4	IC 280-617295/16	1.0	65270.0			65270.0	Y
5	IC 280-617295/15	2.5	161167.0			64466.8	Y
6	IC 280-617295/14	4.0	270481.0			67620.25	Y
7	IC 280-617295/13	7.0	461386.0			65912.285714	Y
8	IC 280-617295/12	10.0	658658.0			65865.8	Y
9	IC 280-617295/11	25.0	1658317.0			66332.68	Y



Calibration / 2,4,6-Trinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

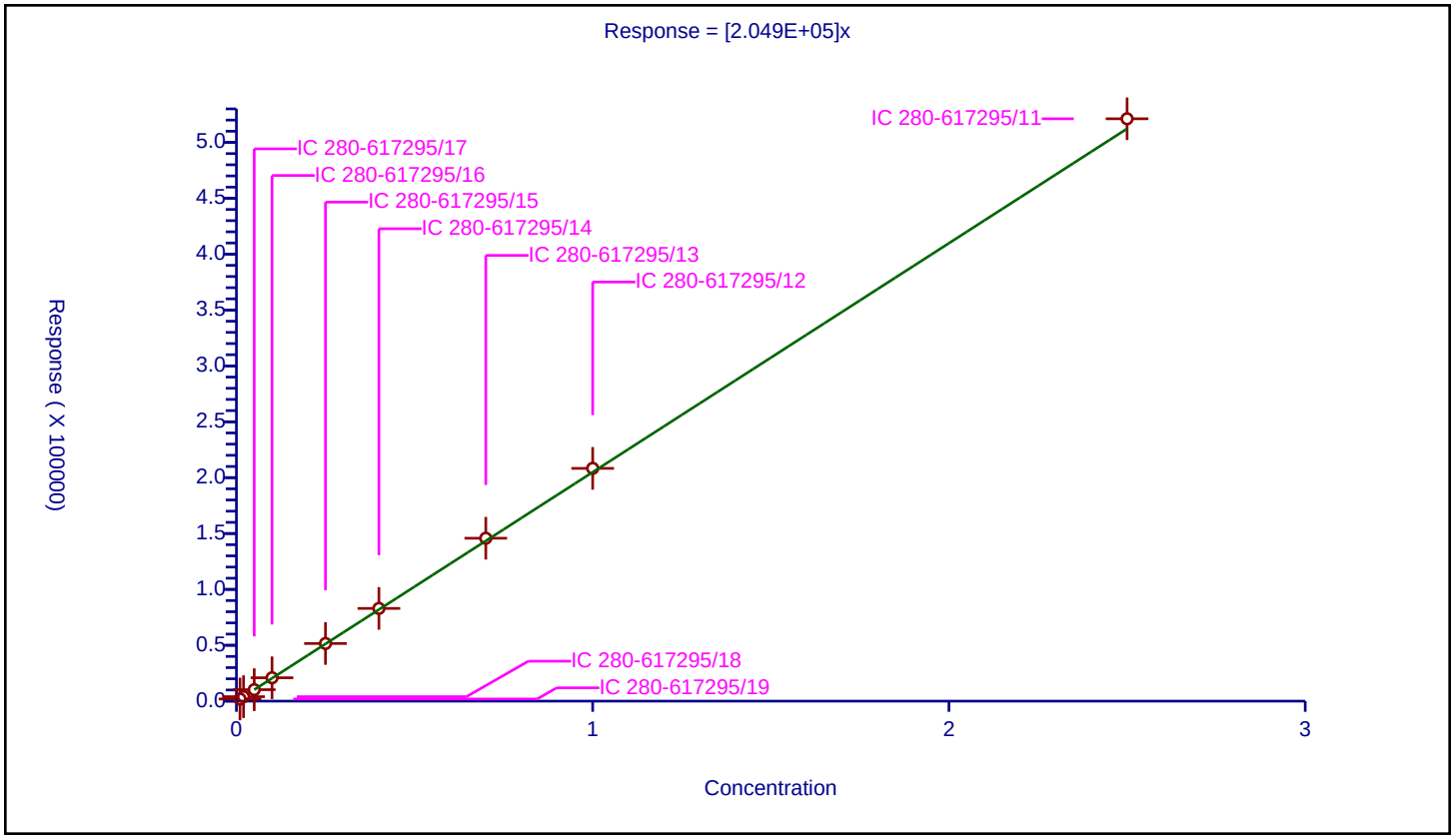
Curve Coefficients

Intercept:	0
Slope:	2.049E+05

Error Coefficients

Standard Error:	3500
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1918.0			191800.0	Y
2	IC 280-617295/18	0.02	3981.0			199050.0	Y
3	IC 280-617295/17	0.05	10269.0			205380.0	Y
4	IC 280-617295/16	0.1	20907.0			209070.0	Y
5	IC 280-617295/15	0.25	51584.0			206336.0	Y
6	IC 280-617295/14	0.4	82972.0			207430.0	Y
7	IC 280-617295/13	0.7	145792.0			208274.285714	Y
8	IC 280-617295/12	1.0	208313.0			208313.0	Y
9	IC 280-617295/11	2.5	521163.0			208465.2	Y



Calibration / 4-Amino-2,6-dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

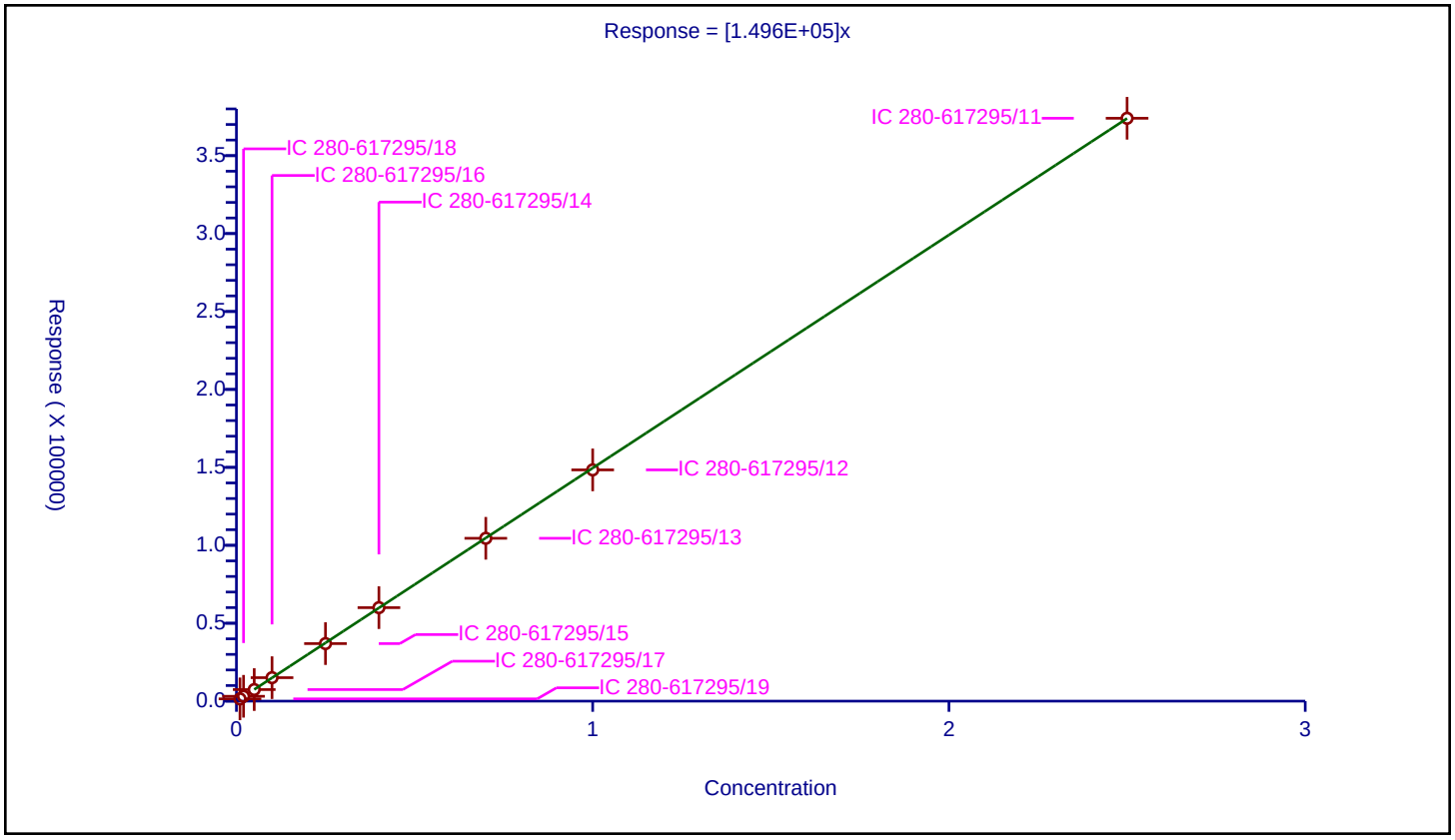
Curve Coefficients

Intercept:	0
Slope:	1.496E+05

Error Coefficients

Standard Error:	467
Relative Standard Error:	1.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1464.0			146400.0	Y
2	IC 280-617295/18	0.02	3111.0			155550.0	Y
3	IC 280-617295/17	0.05	7431.0			148620.0	Y
4	IC 280-617295/16	0.1	15058.0			150580.0	Y
5	IC 280-617295/15	0.25	36921.0			147684.0	Y
6	IC 280-617295/14	0.4	59989.0			149972.5	Y
7	IC 280-617295/13	0.7	104488.0			149268.571429	Y
8	IC 280-617295/12	1.0	148367.0			148367.0	Y
9	IC 280-617295/11	2.5	373989.0			149595.6	Y



10/18/2023
8:21 PM

Calibration / 2-Amino-4,6-dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

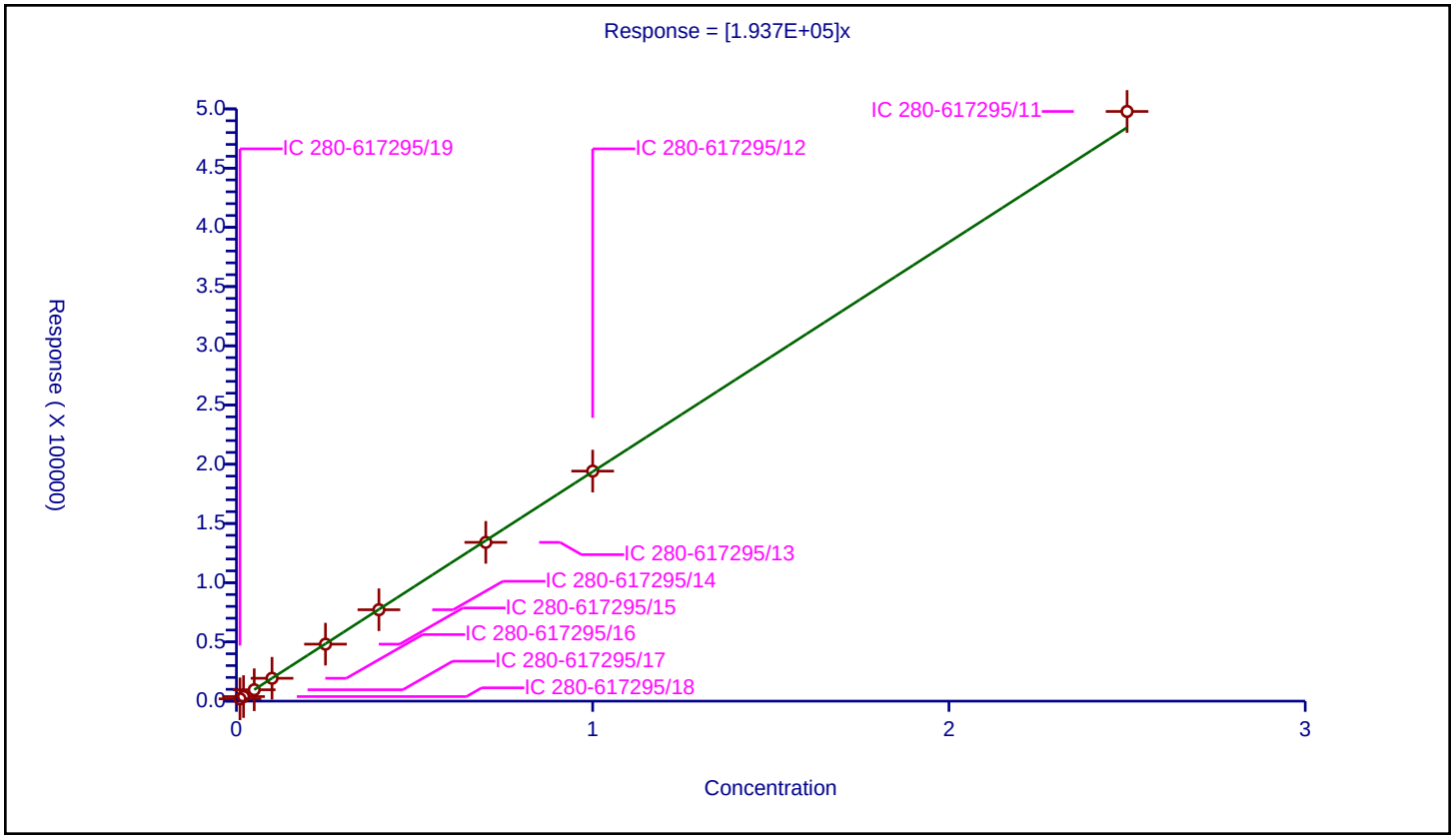
Curve Coefficients

Intercept:	0
Slope:	1.937E+05

Error Coefficients

Standard Error:	4830
Relative Standard Error:	1.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1950.0			195000.0	Y
2	IC 280-617295/18	0.02	3863.0			193150.0	Y
3	IC 280-617295/17	0.05	9604.0			192080.0	Y
4	IC 280-617295/16	0.1	19302.0			193020.0	Y
5	IC 280-617295/15	0.25	48118.0			192472.0	Y
6	IC 280-617295/14	0.4	77156.0			192890.0	Y
7	IC 280-617295/13	0.7	134046.0			191494.285714	Y
8	IC 280-617295/12	1.0	194204.0			194204.0	Y
9	IC 280-617295/11	2.5	497844.0			199137.6	Y



10/18/2023
8:21 PM

Calibration / 2,6-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

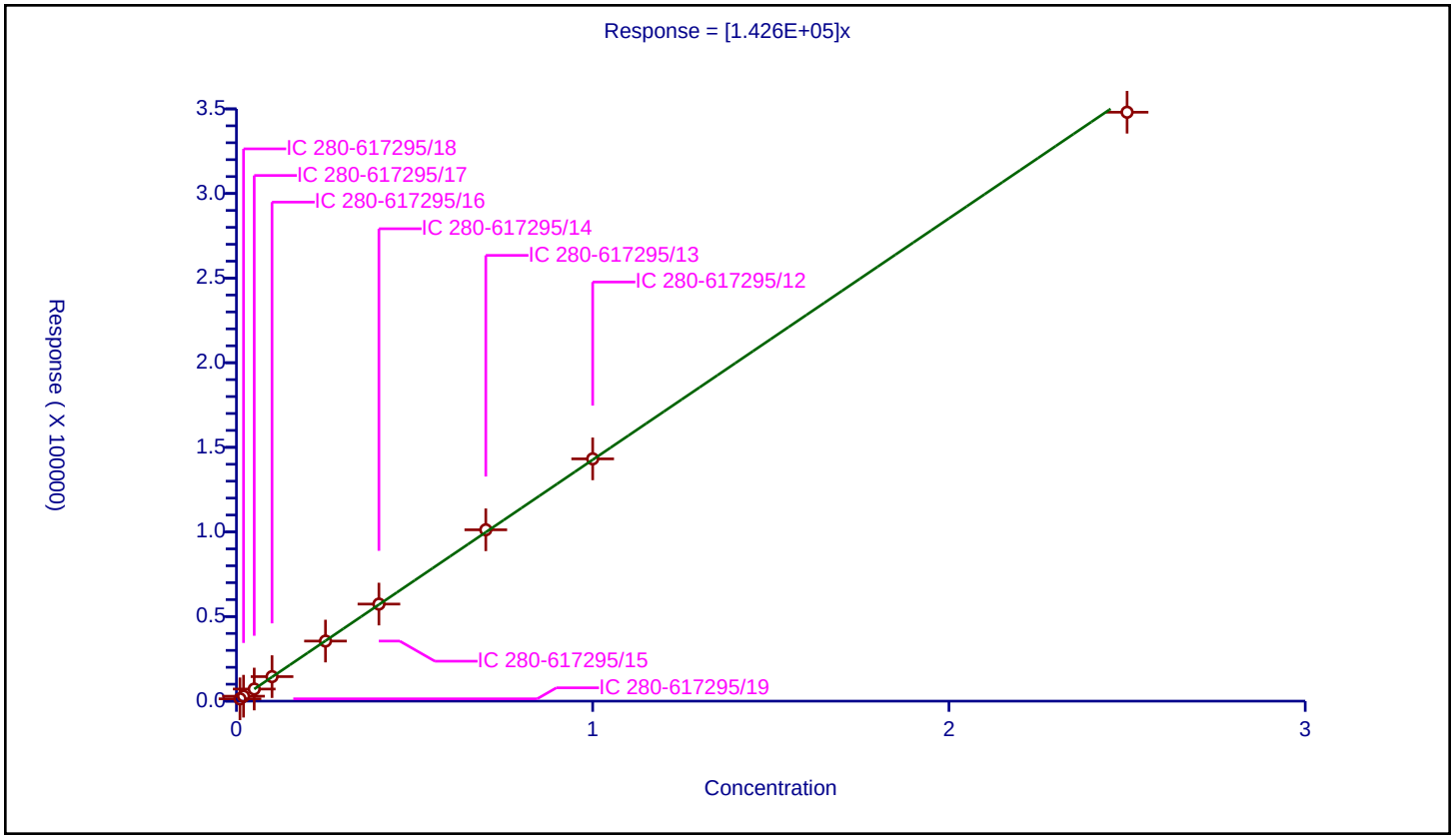
Curve Coefficients

Intercept:	0
Slope:	1.426E+05

Error Coefficients

Standard Error:	3080
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1373.0			137300.0	Y
2	IC 280-617295/18	0.02	2916.0			145800.0	Y
3	IC 280-617295/17	0.05	7160.0			143200.0	Y
4	IC 280-617295/16	0.1	14495.0			144950.0	Y
5	IC 280-617295/15	0.25	35503.0			142012.0	Y
6	IC 280-617295/14	0.4	57368.0			143420.0	Y
7	IC 280-617295/13	0.7	101266.0			144665.714286	Y
8	IC 280-617295/12	1.0	143182.0			143182.0	Y
9	IC 280-617295/11	2.5	348035.0			139214.0	Y



Calibration / 2,4-Dinitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

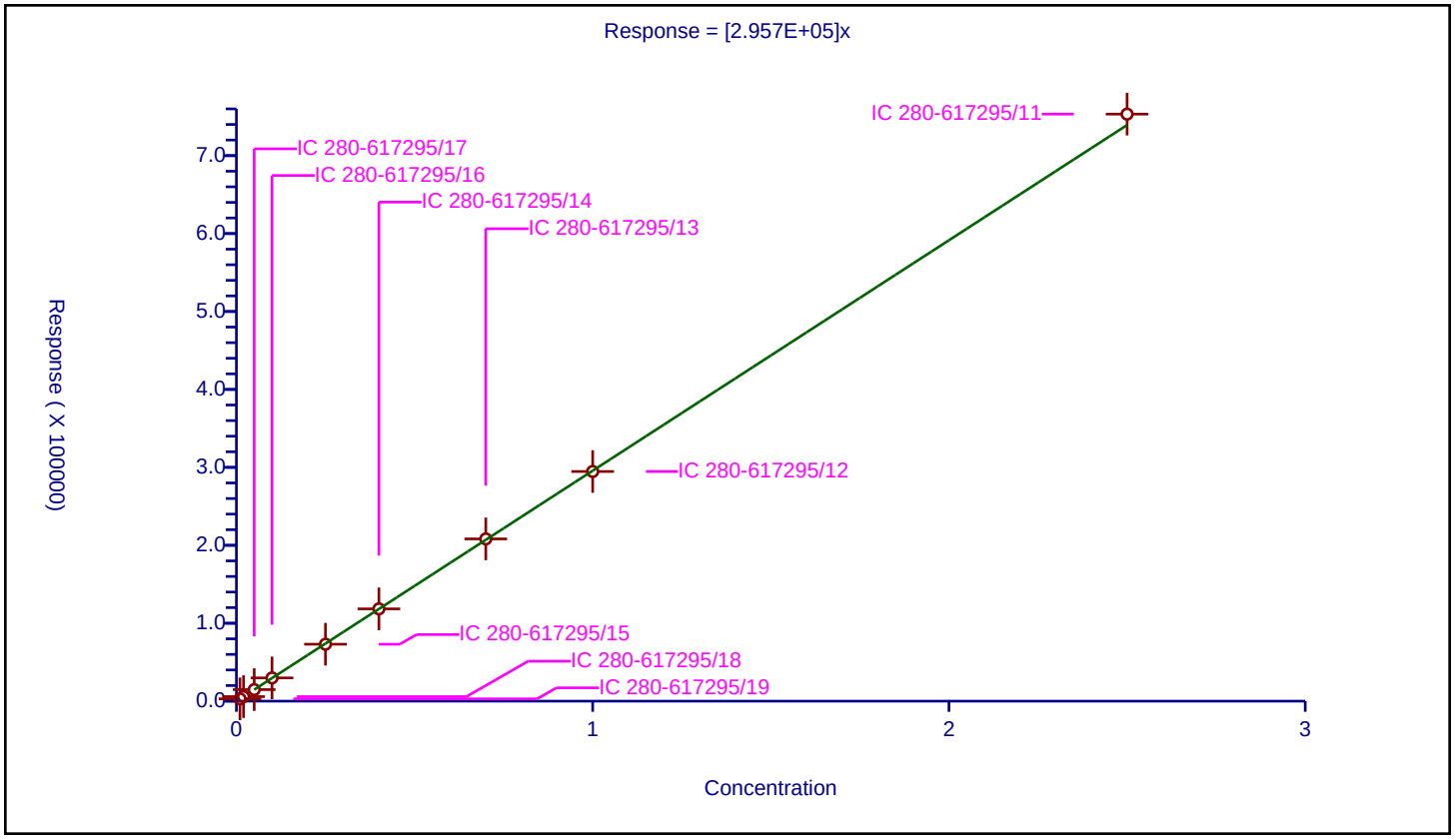
Curve Coefficients

Intercept:	0
Slope:	2.957E+05

Error Coefficients

Standard Error:	4990
Relative Standard Error:	1.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	2941.0			294100.0	Y
2	IC 280-617295/18	0.02	5829.0			291450.0	Y
3	IC 280-617295/17	0.05	14800.0			296000.0	Y
4	IC 280-617295/16	0.1	29811.0			298110.0	Y
5	IC 280-617295/15	0.25	73049.0			292196.0	Y
6	IC 280-617295/14	0.4	118425.0			296062.5	Y
7	IC 280-617295/13	0.7	208191.0			297415.714286	Y
8	IC 280-617295/12	1.0	294715.0			294715.0	Y
9	IC 280-617295/11	2.5	753261.0			301304.4	Y



Calibration / o-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

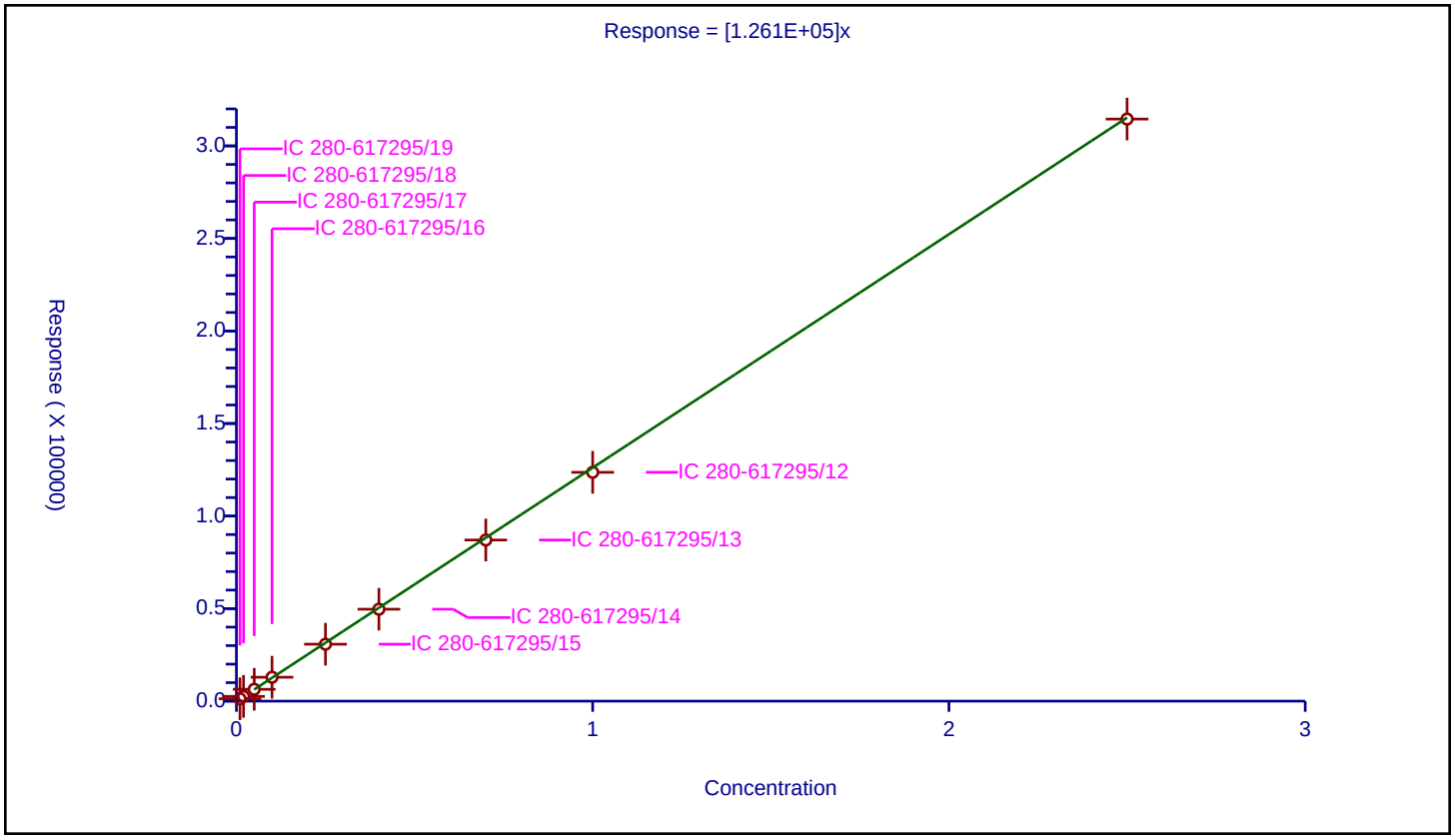
Curve Coefficients

Intercept:	0
Slope:	1.261E+05

Error Coefficients

Standard Error:	1100
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1291.0			129100.0	Y
2	IC 280-617295/18	0.02	2556.0			127800.0	Y
3	IC 280-617295/17	0.05	6403.0			128060.0	Y
4	IC 280-617295/16	0.1	12912.0			129120.0	Y
5	IC 280-617295/15	0.25	30758.0			123032.0	Y
6	IC 280-617295/14	0.4	49671.0			124177.5	Y
7	IC 280-617295/13	0.7	87064.0			124377.142857	Y
8	IC 280-617295/12	1.0	123644.0			123644.0	Y
9	IC 280-617295/11	2.5	314499.0			125799.6	Y



10/18/2023
8:21 PM

Calibration / p-Nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

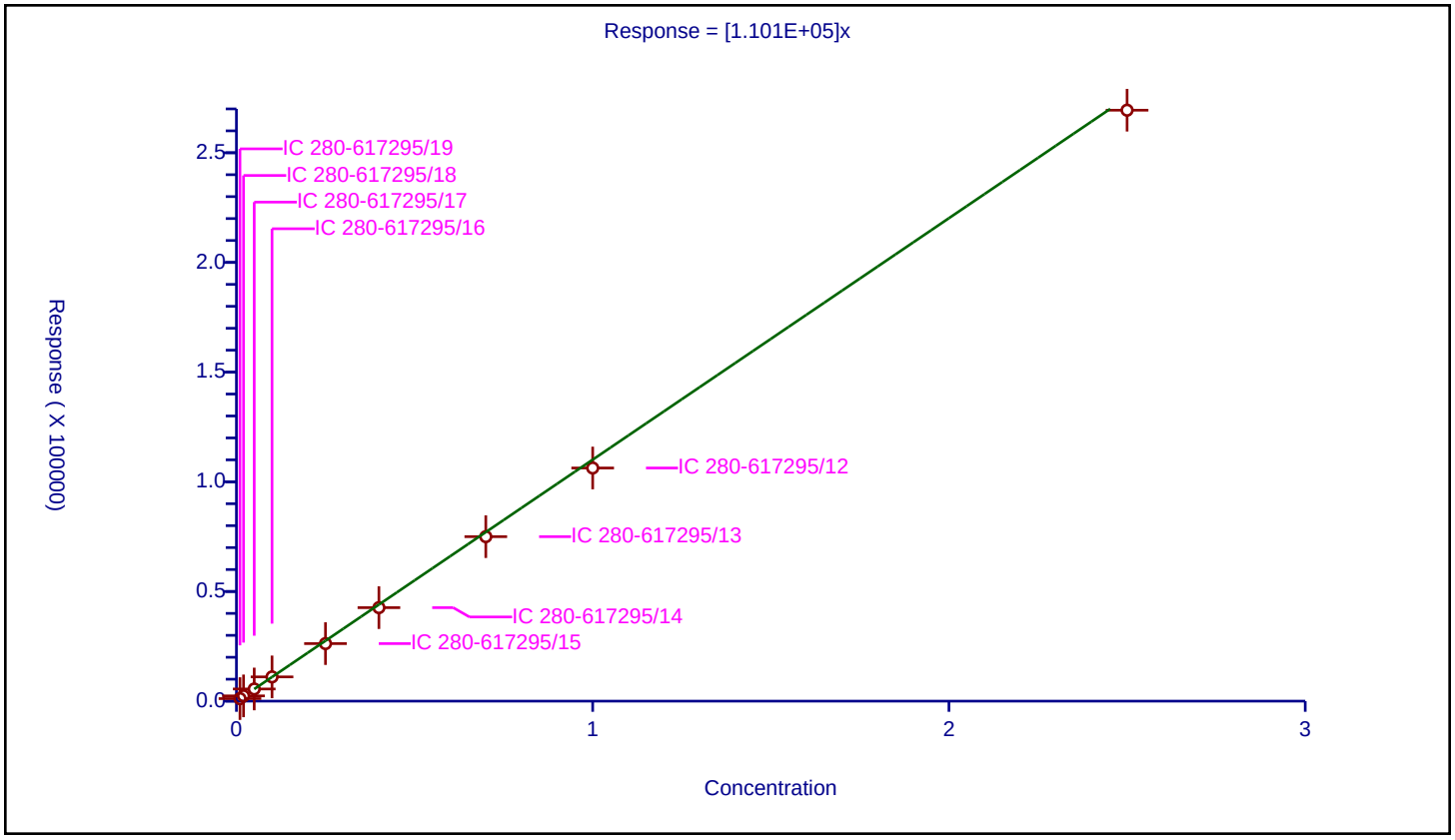
Curve Coefficients

Intercept:	0
Slope:	1.101E+05

Error Coefficients

Standard Error:	2650
Relative Standard Error:	4.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1165.0			116500.0	Y
2	IC 280-617295/18	0.02	2404.0			120200.0	Y
3	IC 280-617295/17	0.05	5543.0			110860.0	Y
4	IC 280-617295/16	0.1	11057.0			110570.0	Y
5	IC 280-617295/15	0.25	26234.0			104936.0	Y
6	IC 280-617295/14	0.4	42626.0			106565.0	Y
7	IC 280-617295/13	0.7	74981.0			107115.714286	Y
8	IC 280-617295/12	1.0	106286.0			106286.0	Y
9	IC 280-617295/11	2.5	269407.0			107762.8	Y



10/18/2023
8:21 PM

Calibration / m-Nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

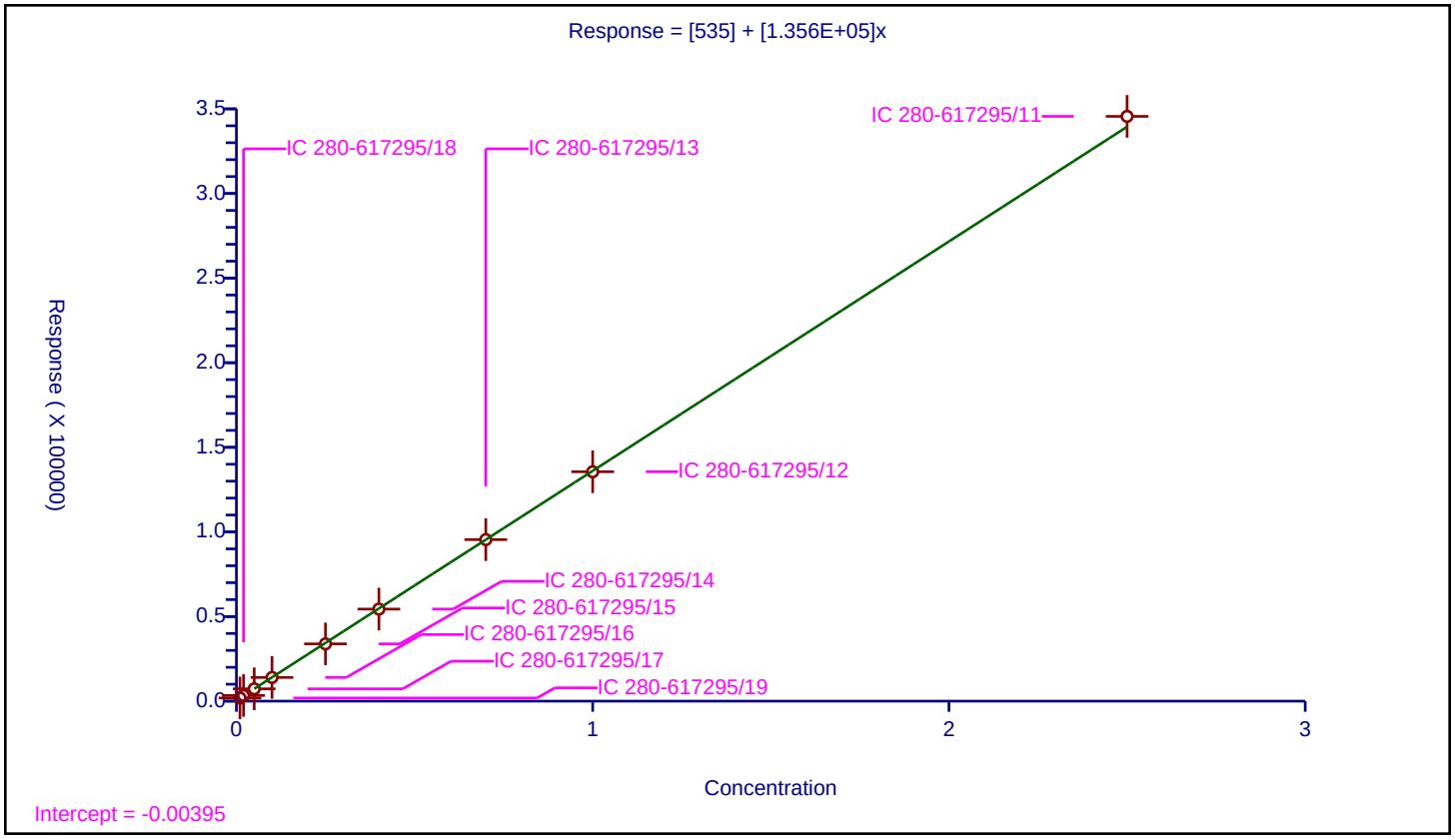
Curve Coefficients

Intercept:	535
Slope:	1.356E+05

Error Coefficients

Standard Error:	2350
Relative Standard Error:	1.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.01	1870.0			187000.0	Y
2	IC 280-617295/18	0.02	3341.0			167050.0	Y
3	IC 280-617295/17	0.05	7282.0			145640.0	Y
4	IC 280-617295/16	0.1	14001.0			140010.0	Y
5	IC 280-617295/15	0.25	33854.0			135416.0	Y
6	IC 280-617295/14	0.4	54401.0			136002.5	Y
7	IC 280-617295/13	0.7	95457.0			136367.142857	Y
8	IC 280-617295/12	1.0	135553.0			135553.0	Y
9	IC 280-617295/11	2.5	345577.0			138230.8	Y



10/18/2023
8:21 PM

Calibration / PETN

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

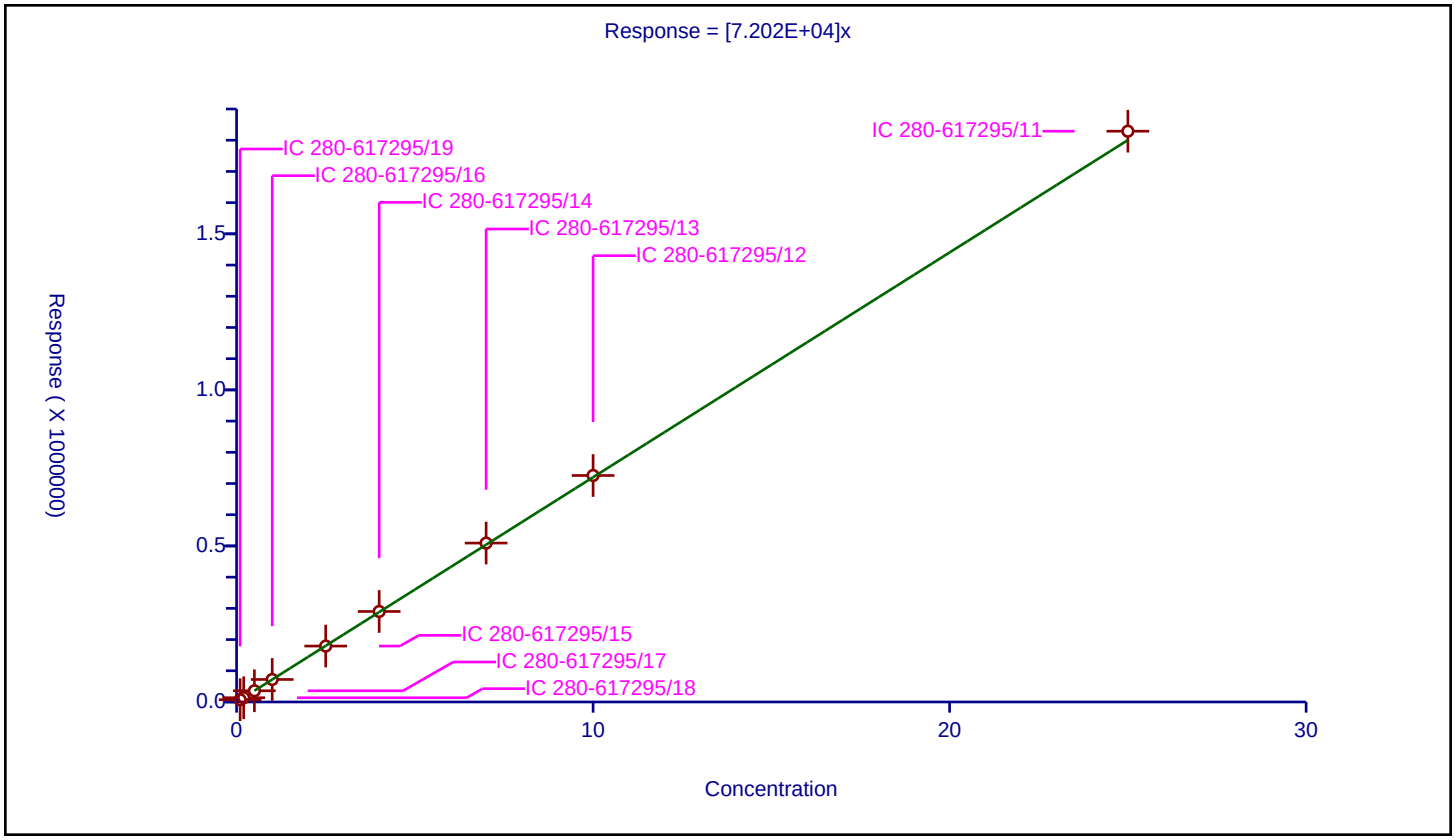
Curve Coefficients

Intercept:	0
Slope:	7.202E+04

Error Coefficients

Standard Error:	10400
Relative Standard Error:	2.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/19	0.1	7328.0			73280.0	Y
2	IC 280-617295/18	0.2	13637.0			68185.0	Y
3	IC 280-617295/17	0.5	35921.0			71842.0	Y
4	IC 280-617295/16	1.0	72200.0			72200.0	Y
5	IC 280-617295/15	2.5	179178.0			71671.2	Y
6	IC 280-617295/14	4.0	290067.0			72516.75	Y
7	IC 280-617295/13	7.0	509169.0			72738.428571	Y
8	IC 280-617295/12	10.0	725734.0			72573.4	Y
9	IC 280-617295/11	25.0	1828875.0			73155.0	Y



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-182443-1 | Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5u ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 21:43 | Calibration End Date: 06/24/2023 00:23 | Calibration ID: 81927

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/28	06230028.D
Level 2	IC 280-617295/27	06230027.D
Level 3	IC 280-617295/26	06230026.D
Level 4	IC 280-617295/25	06230025.D
Level 5	IC 280-617295/24	06230024.D
Level 6	IC 280-617295/23	06230023.D
Level 7	IC 280-617295/22	06230022.D
Level 8	IC 280-617295/21	06230021.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	6.470	6.478	6.471	6.475	6.474	6.474	6.467	6.467			6.325 - 6.625	6.472
2,4-diamino-6-nitrotoluene	6.663	6.672	6.664	6.669	6.668	6.668	6.660	6.661			6.519 - 6.819	6.666

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-182443-1 Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 GC Column: UltraCarb5u ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 21:43 Calibration End Date: 06/24/2023 00:23 Calibration ID: 81927

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/28	06230028.D
Level 2	IC 280-617295/27	06230027.D
Level 3	IC 280-617295/26	06230026.D
Level 4	IC 280-617295/25	06230025.D
Level 5	IC 280-617295/24	06230024.D
Level 6	IC 280-617295/23	06230023.D
Level 7	IC 280-617295/22	06230022.D
Level 8	IC 280-617295/21	06230021.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,6-diamino-4-nitrotoluene	220600 213353	263000 220126	226520 222122	225404 213398	Ave		225565.227				7.0		20.0			
2,4-diamino-6-nitrotoluene	156550 131303	165000 137551	144420 139337	140720 131729	Ave		143326.266				8.3		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-182443-1 | Analy Batch No.: 617295

SDG No.:

Instrument ID: CHHPLC_X3 | GC Column: UltraCarb5 ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 06/23/2023 21:43 | Calibration End Date: 06/24/2023 00:23 | Calibration ID: 81927

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-617295/28	06230028.D
Level 2	IC 280-617295/27	06230027.D
Level 3	IC 280-617295/26	06230026.D
Level 4	IC 280-617295/25	06230025.D
Level 5	IC 280-617295/24	06230024.D
Level 6	IC 280-617295/23	06230023.D
Level 7	IC 280-617295/22	06230022.D
Level 8	IC 280-617295/21	06230021.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Ave	4412 154088	10520 222122	22652 533494	56351	85341	0.0200 0.700	0.0400 1.00	0.100 2.50	0.250	0.400
2,4-diamino-6-nitrotoluene	Ave	3131 96286	6600 139337	14442 329323	35180	52521	0.0200 0.700	0.0400 1.00	0.100 2.50	0.250	0.400

Curve Type Legend:
Ave = Average

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230021.D
Lims ID: IC ADD 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 23-Jun-2023 21:43:15 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 8
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:52 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:41:47

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.467	6.475	-0.008	533494	2.50	2.37	M
5 2,4-diamino-6-nitrotoluene	1	6.661	6.669	-0.008	329323	2.50	2.30	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 125.00 Units: uL

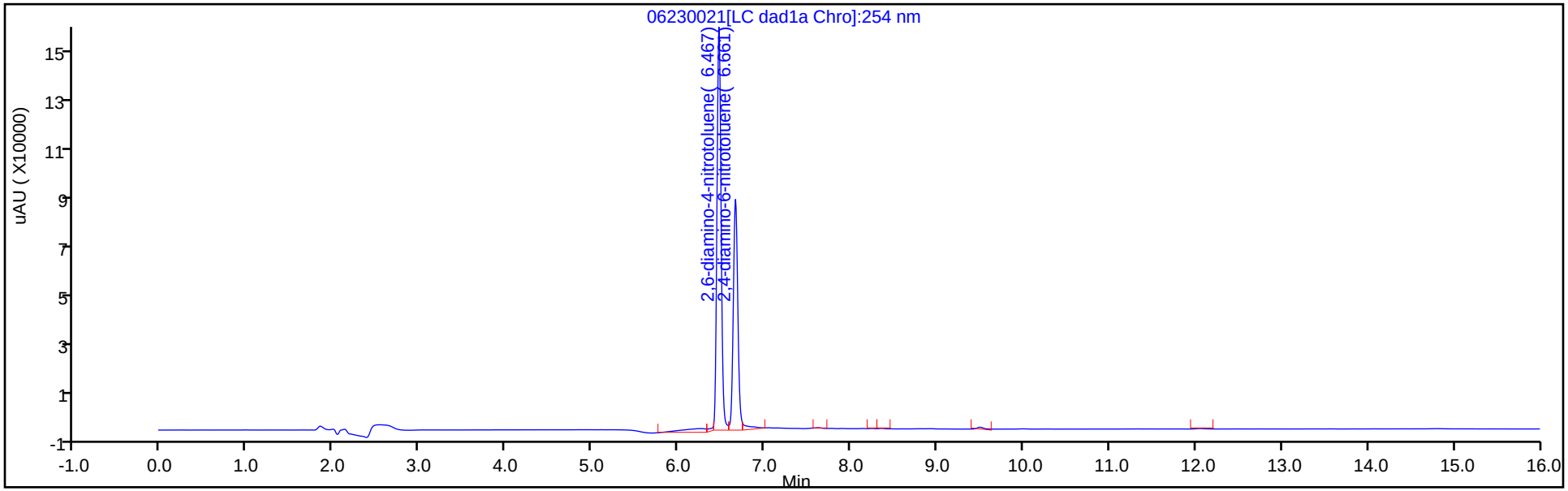
Report Date: 24-Jun-2023 12:55:52 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

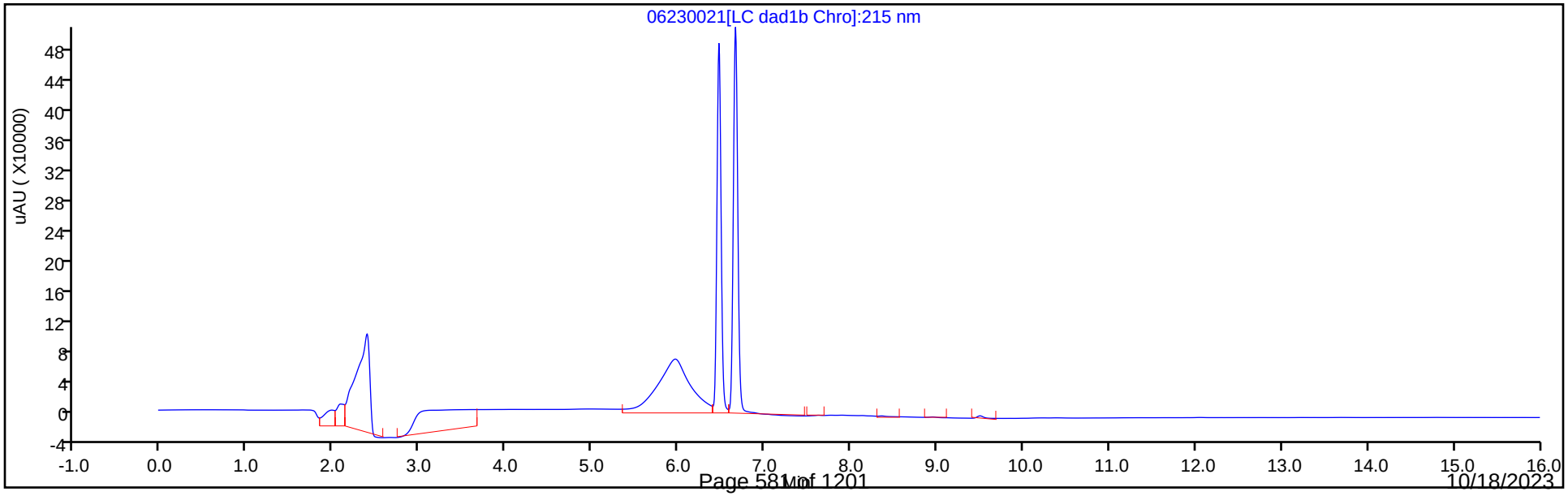
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230021.d

Injection Date:	23-Jun-2023 21:43:15	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 8			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

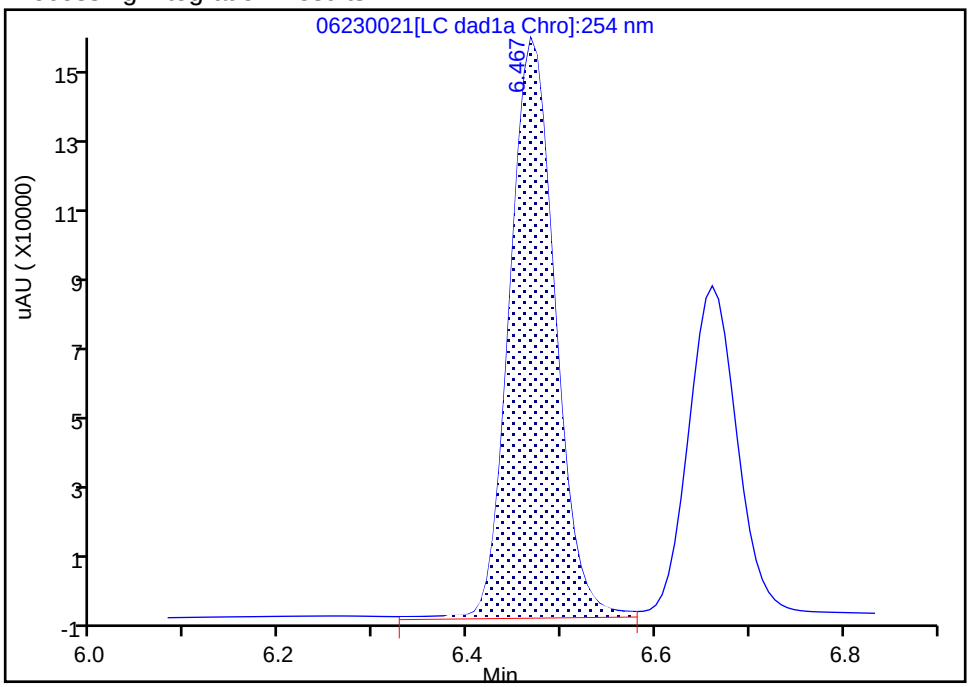
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230021.d				
Injection Date:	23-Jun-2023 21:43:15	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

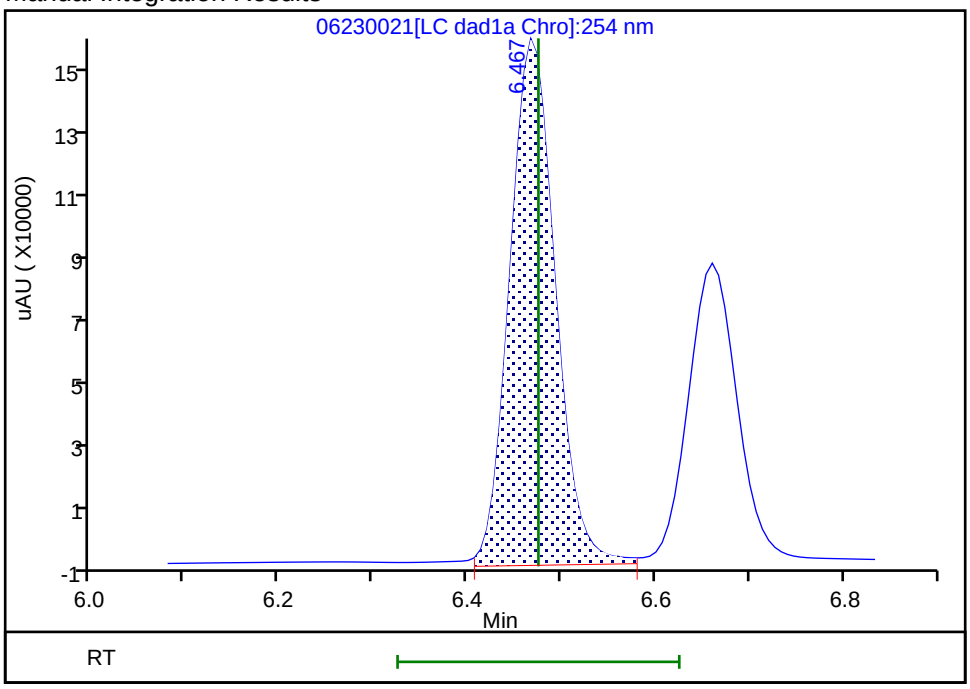
Processing Integration Results

RT: 6.47
Area: 539094
Amount: 2.445370
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 533494
Amount: 2.365143
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:41:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

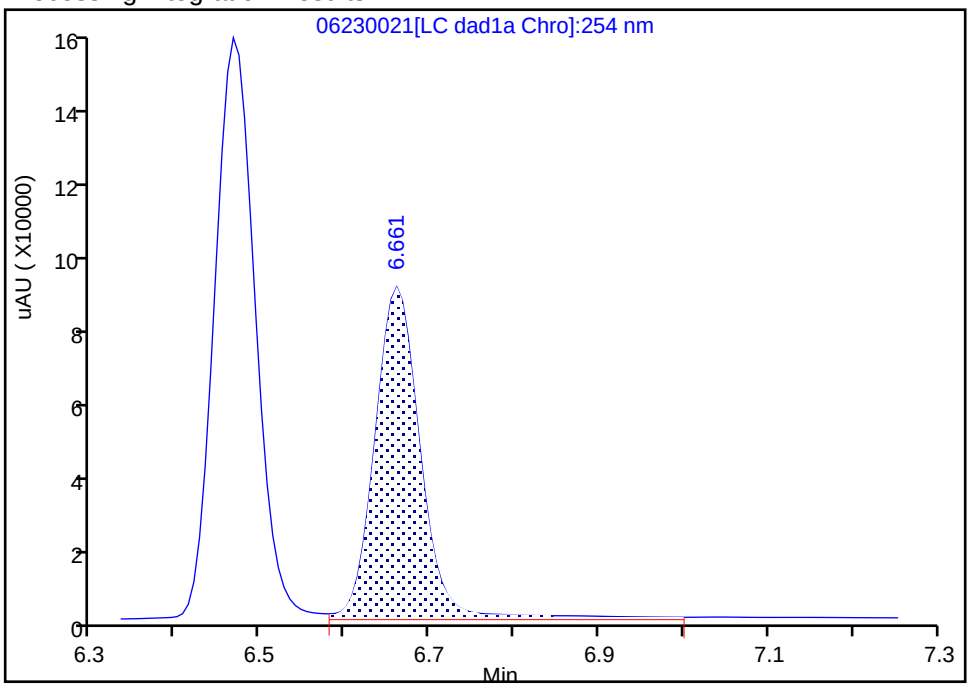
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230021.d				
Injection Date:	23-Jun-2023 21:43:15	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

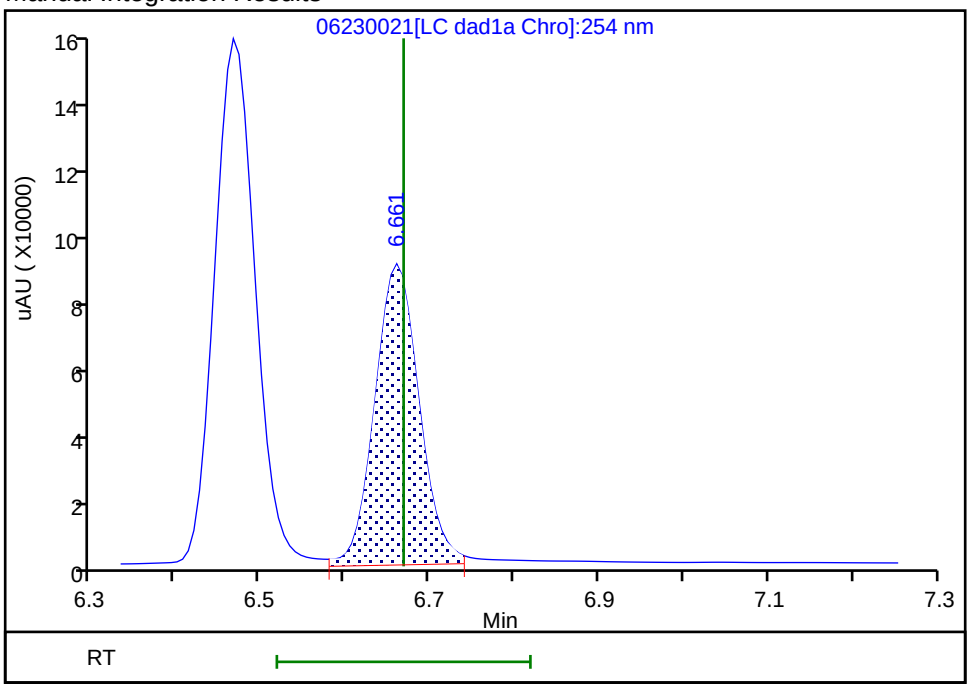
Processing Integration Results

RT: 6.66
Area: 343766
Amount: 2.533529
Amount Units: ug/mL



Manual Integration Results

RT: 6.66
Area: 329323
Amount: 2.297716
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:41:43 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230022.D
Lims ID: IC ADD 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 23-Jun-2023 22:06:06 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 7
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:52 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:41:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.467	6.475	-0.008	222122	1.00	0.9847	M
5 2,4-diamino-6-nitrotoluene	1	6.660	6.669	-0.009	139337	1.00	0.9722	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 50.00 Units: uL

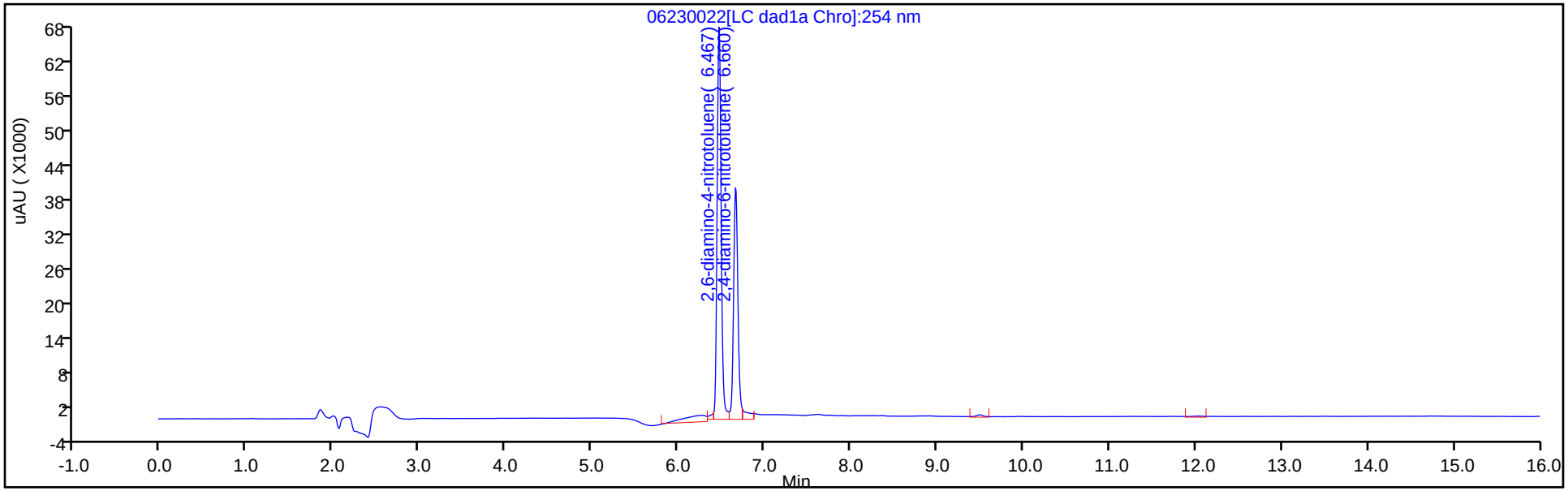
Report Date: 24-Jun-2023 12:55:53 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

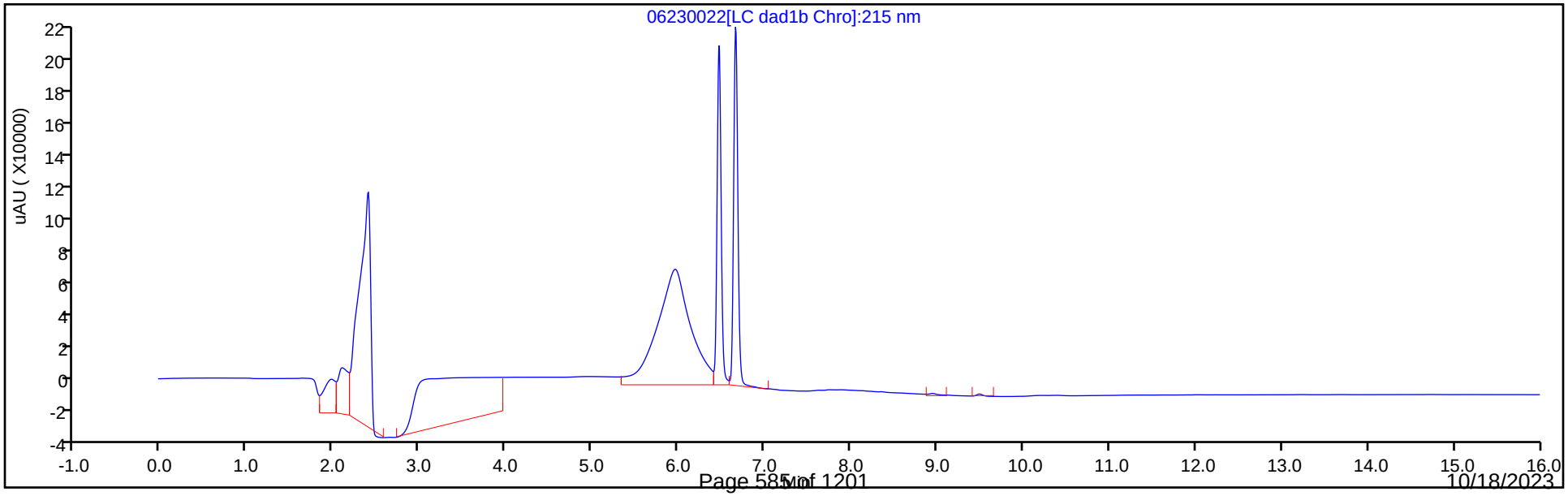
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230022.d

Injection Date:	23-Jun-2023 22:06:06	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 7			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

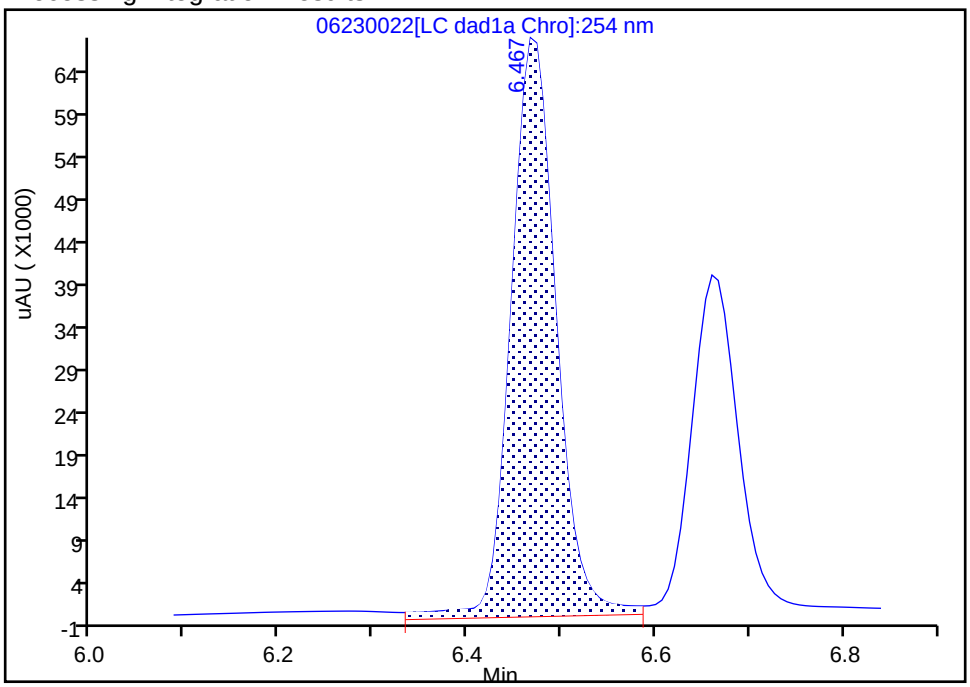
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230022.d				
Injection Date:	23-Jun-2023 22:06:06	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

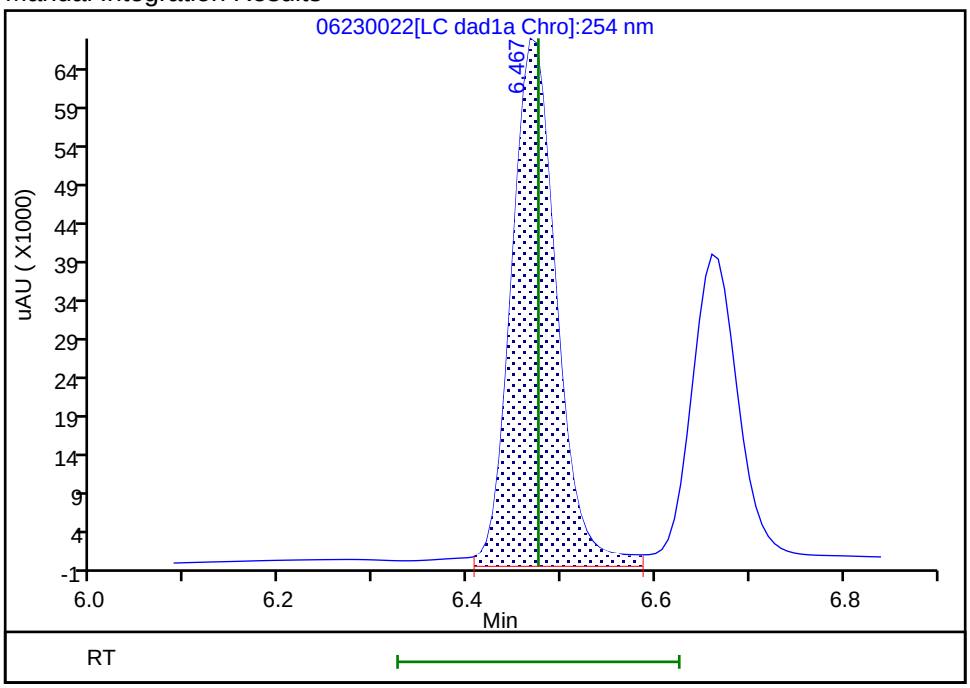
Processing Integration Results

RT: 6.47
Area: 225519
Amount: 0.988383
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 222122
Amount: 0.984735
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:41:56 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

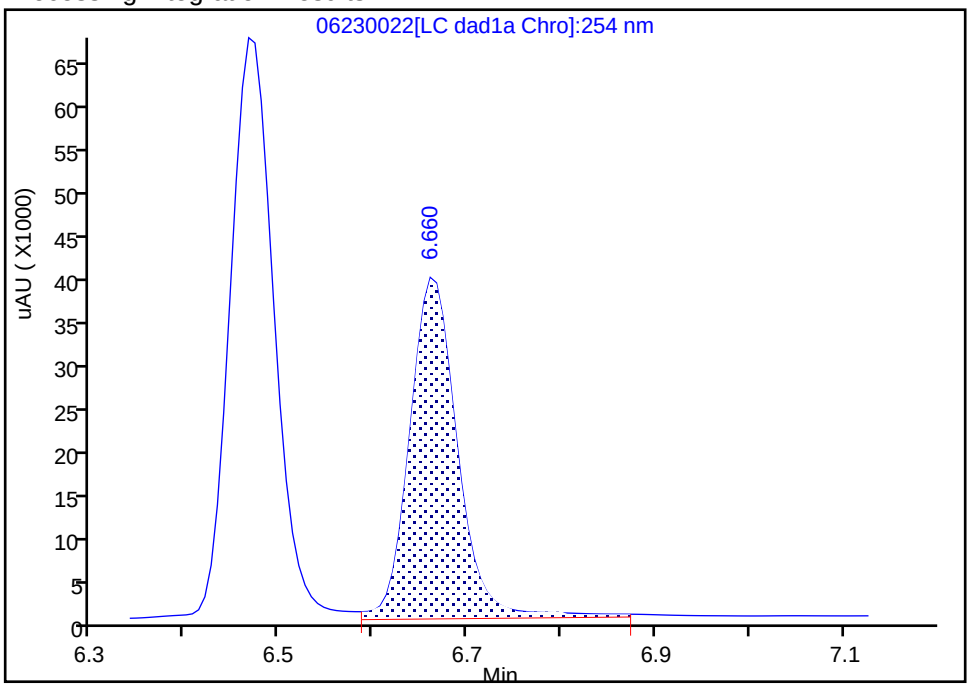
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230022.d
Injection Date: 23-Jun-2023 22:06:06 Instrument ID: CHHPLC_X3
Lims ID: IC ADD 7
Client ID:
Operator ID: JZ/JG ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

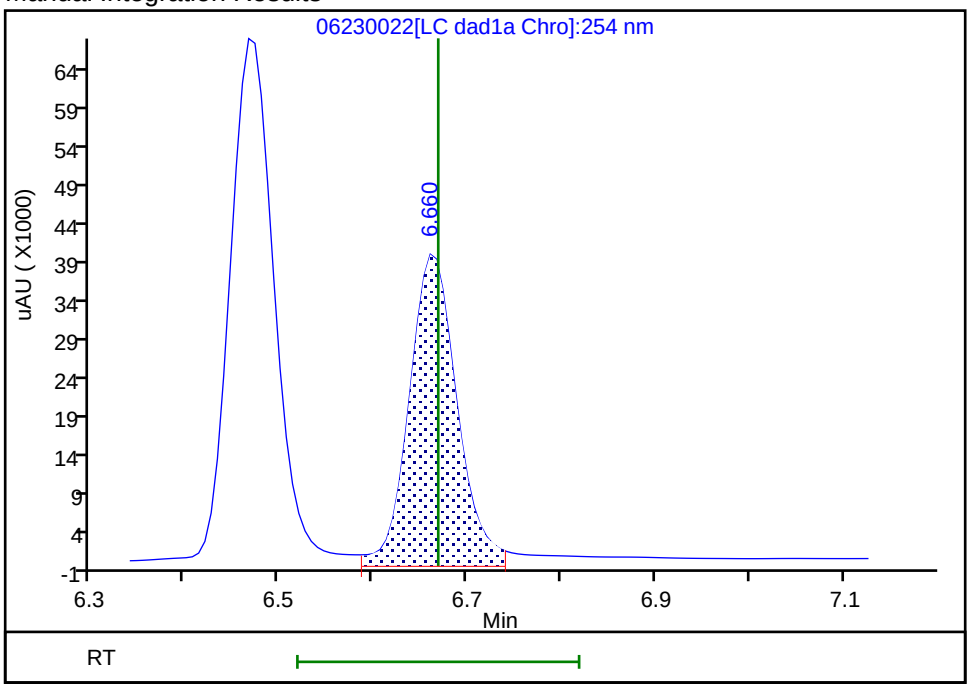
Processing Integration Results

RT: 6.66
Area: 139316
Amount: 0.997706
Amount Units: ug/mL



Manual Integration Results

RT: 6.66
Area: 139337
Amount: 0.972167
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:41:57 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230023.D
Lims ID: IC ADD 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 23-Jun-2023 22:29:01 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:53 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:42:08

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.474	6.475	-0.001	154088	0.7000	0.6831	M
5 2,4-diamino-6-nitrotoluene	1	6.668	6.669	-0.001	96286	0.7000	0.6718	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 35.00 Units: uL

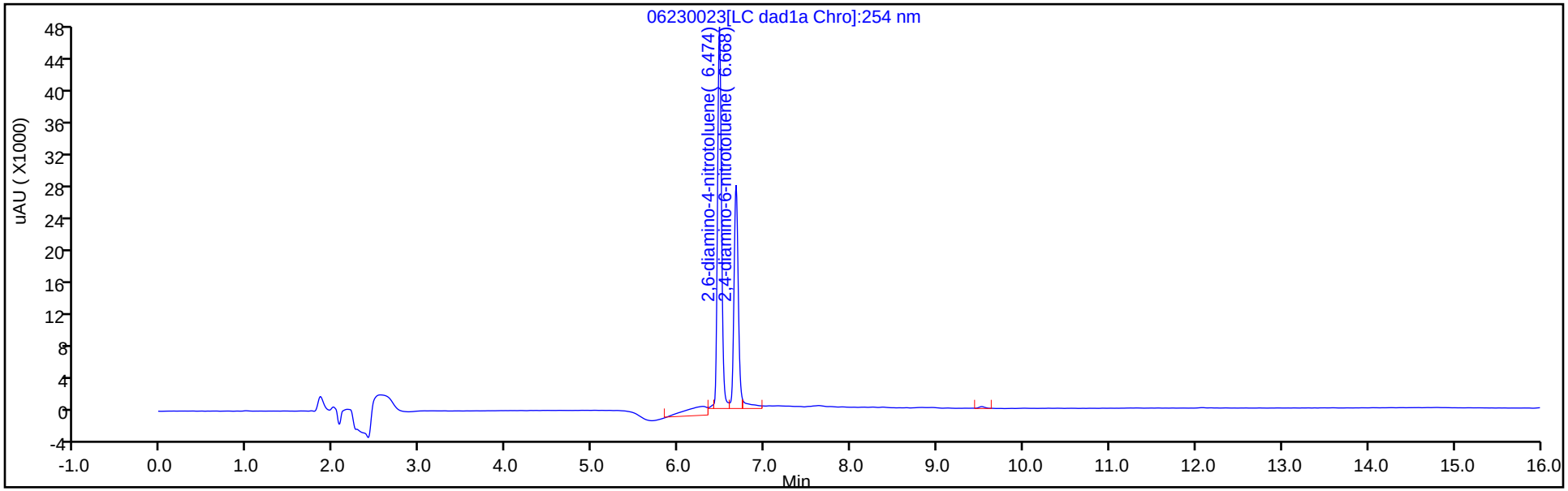
Report Date: 24-Jun-2023 12:55:53 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

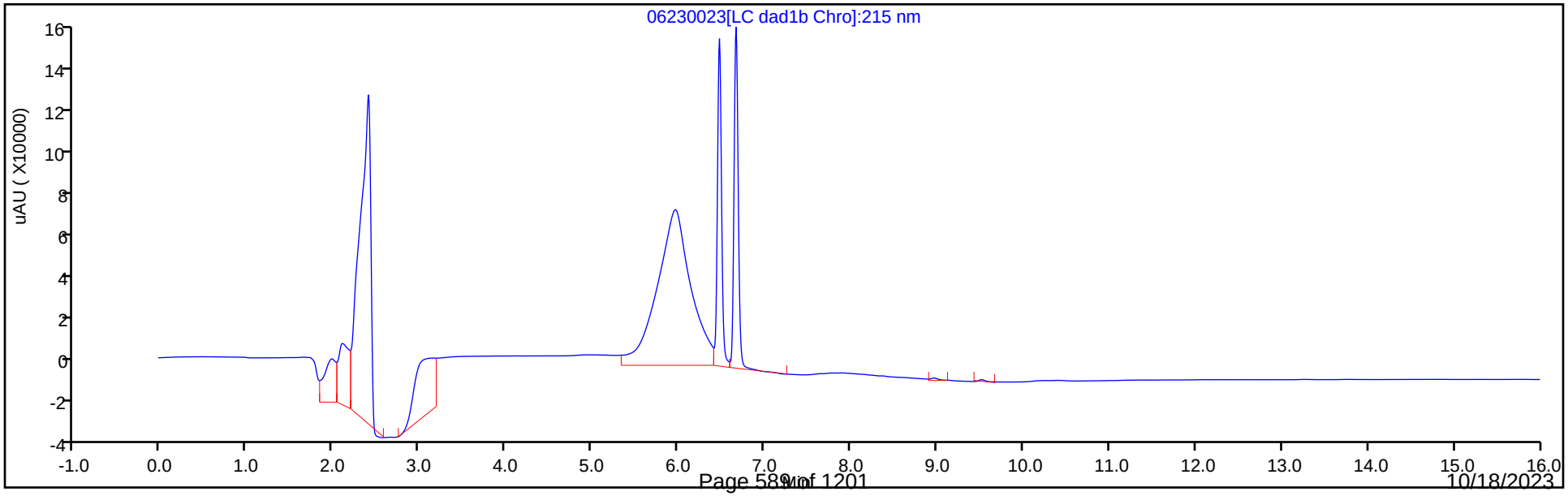
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230023.d

Injection Date:	23-Jun-2023 22:29:01	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 6			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

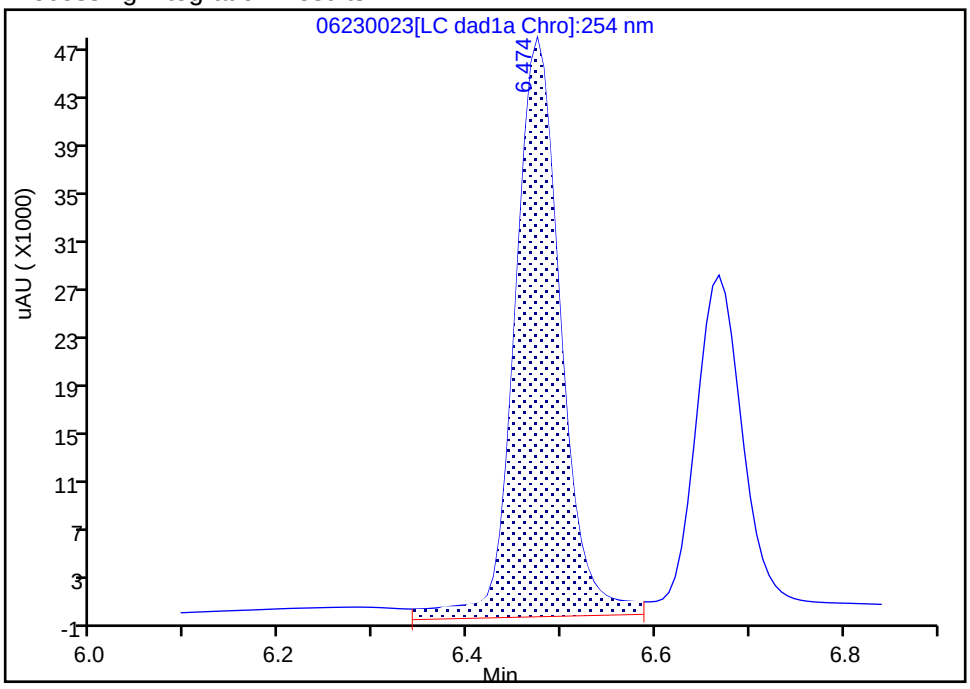
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230023.d				
Injection Date:	23-Jun-2023 22:29:01	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

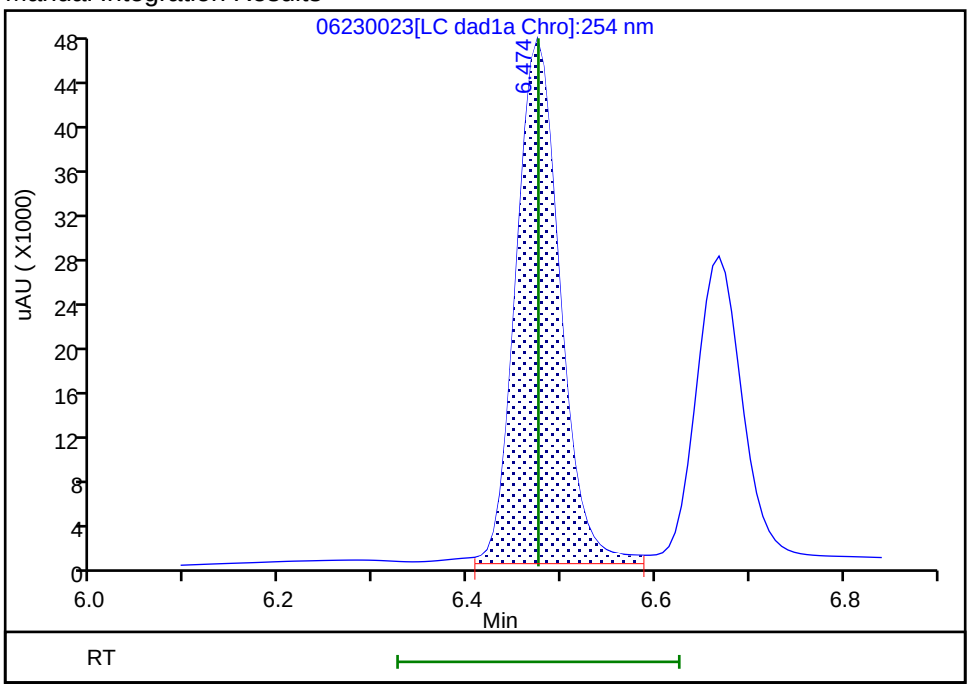
Processing Integration Results

RT: 6.47
Area: 162603
Amount: 0.697057
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 154088
Amount: 0.683119
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:06 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

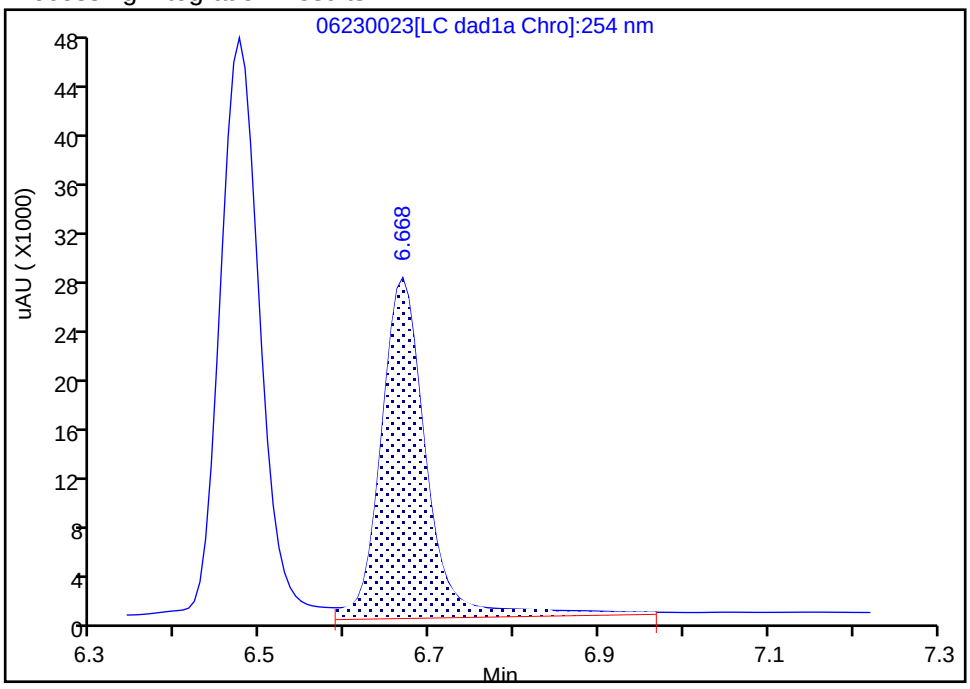
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230023.d				
Injection Date:	23-Jun-2023 22:29:01	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

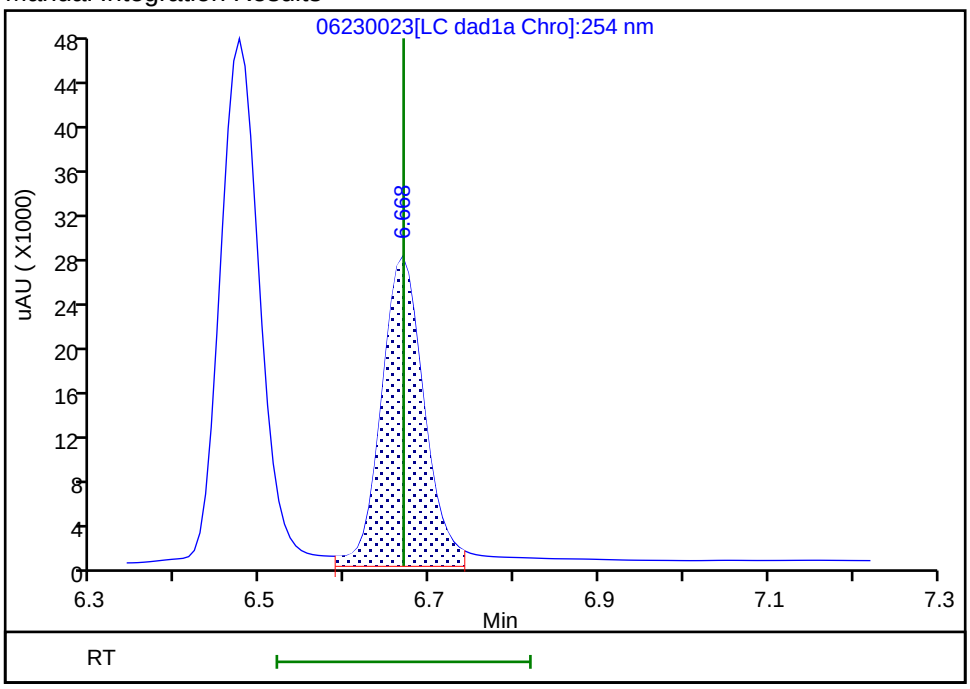
Processing Integration Results

RT: 6.67
Area: 105227
Amount: 0.731247
Amount Units: ug/mL



Manual Integration Results

RT: 6.67
Area: 96286
Amount: 0.671796
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:07 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230024.D
Lims ID: IC ADD 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 23-Jun-2023 22:52:03 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:53 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:42:22

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.474	6.475	-0.001	85341	0.4000	0.3783	M
5 2,4-diamino-6-nitrotoluene	1	6.668	6.669	-0.001	52521	0.4000	0.3664	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 20.00 Units: uL

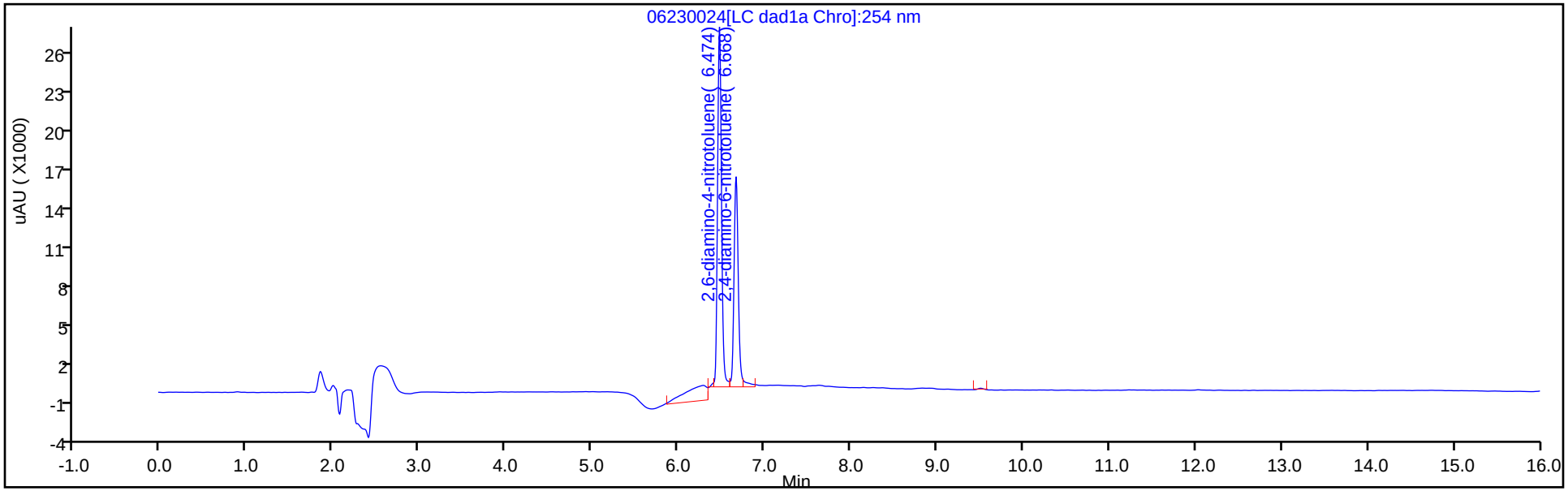
Report Date: 24-Jun-2023 12:55:53 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

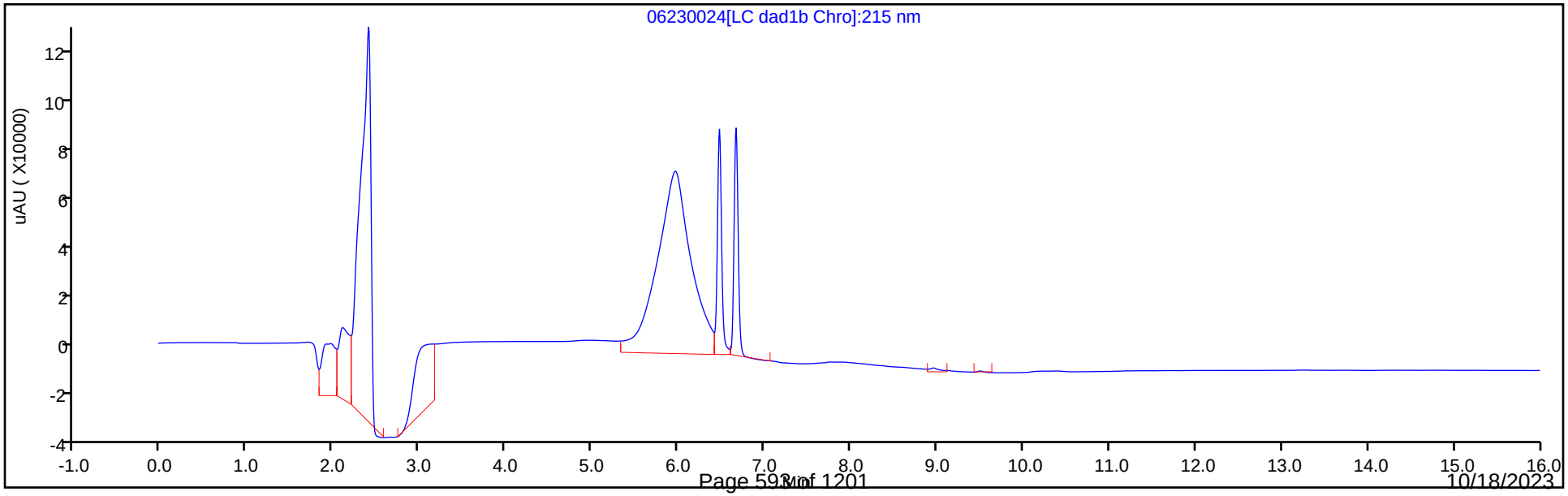
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230024.d

Injection Date:	23-Jun-2023 22:52:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 5			Worklist Smp#:	24
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

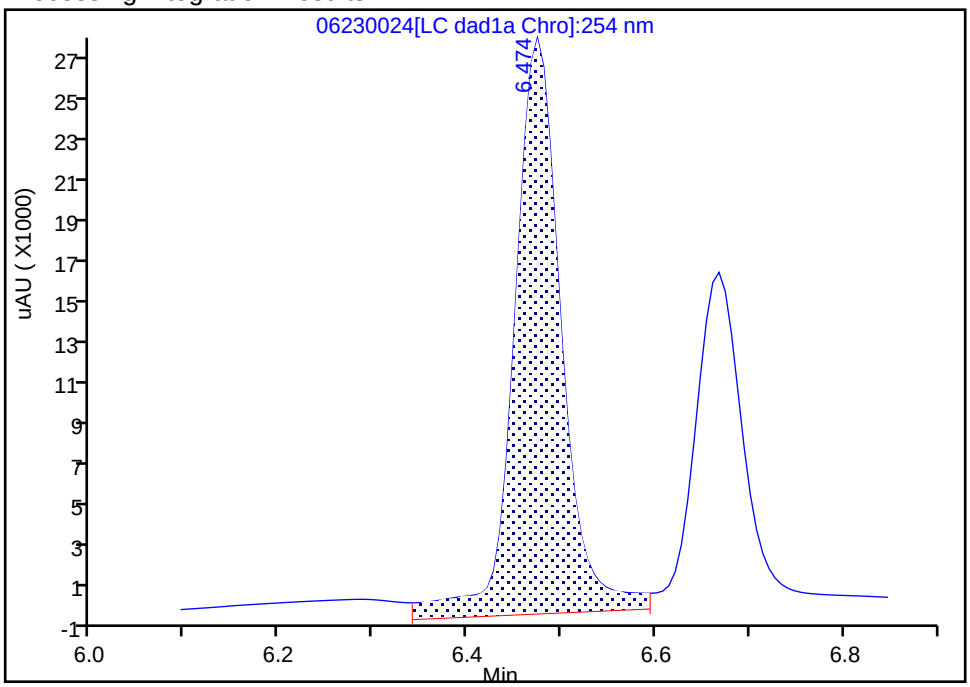
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230024.d				
Injection Date:	23-Jun-2023 22:52:03	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

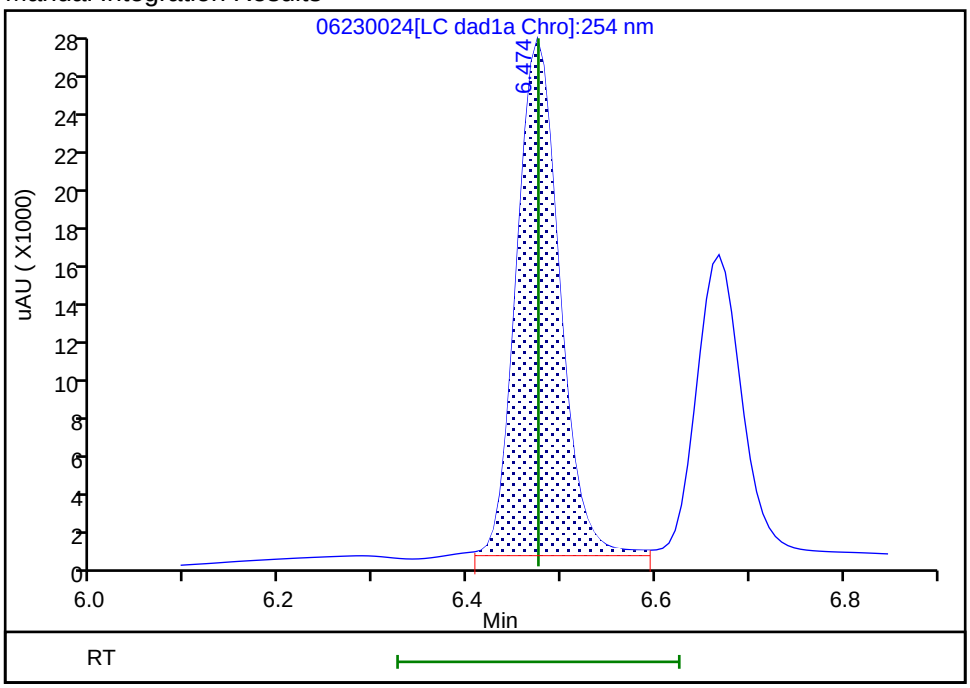
Processing Integration Results

RT: 6.47
Area: 96404
Amount: 0.391345
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 85341
Amount: 0.378343
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:20 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

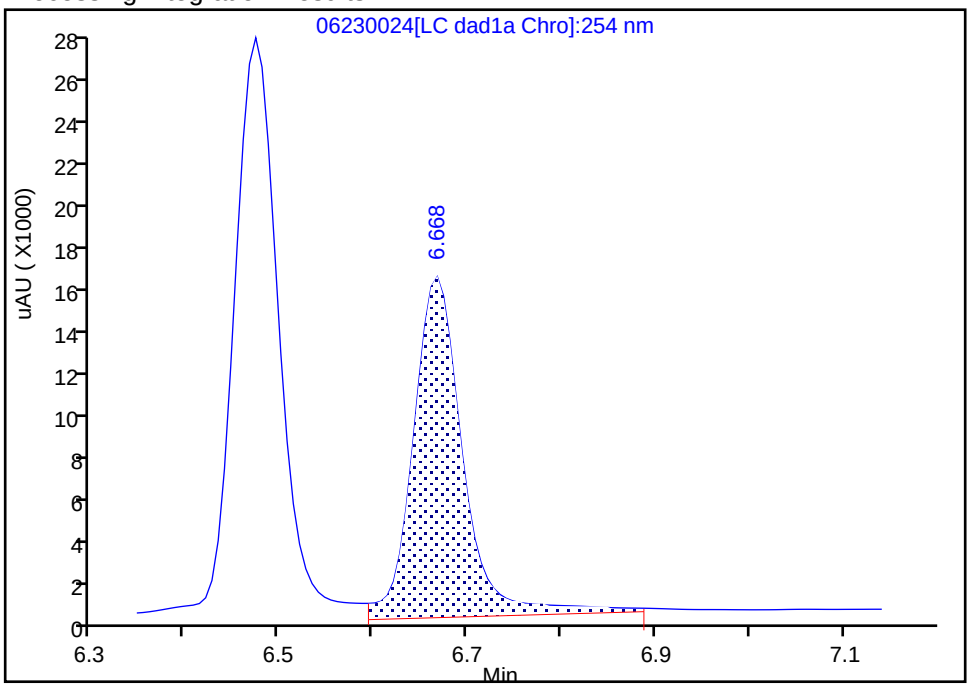
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230024.d				
Injection Date:	23-Jun-2023 22:52:03	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

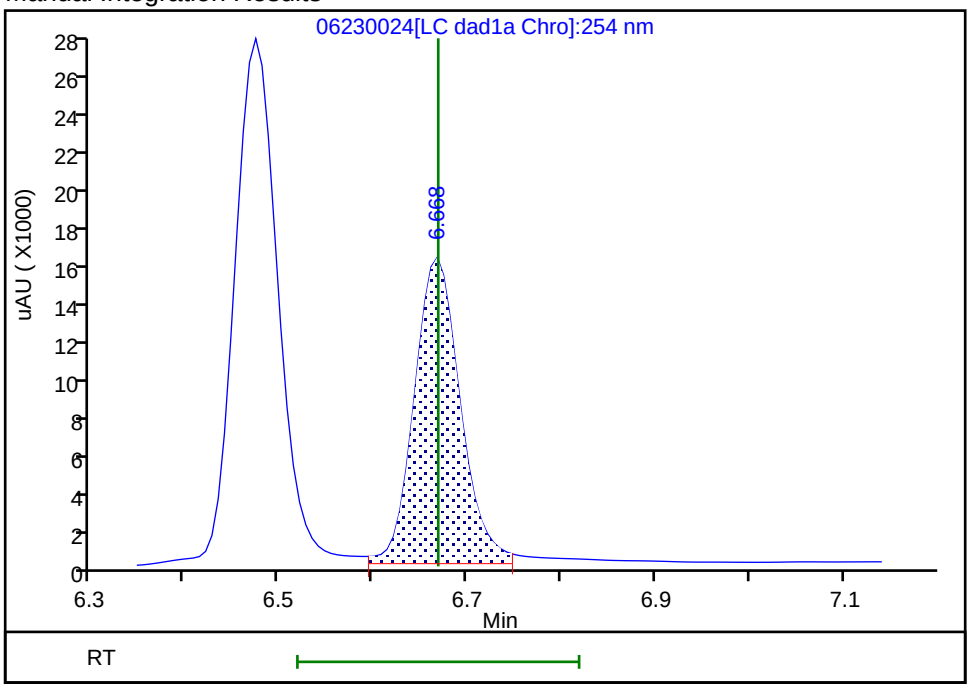
Processing Integration Results

RT: 6.67
Area: 59274
Amount: 0.377302
Amount Units: ug/mL



Manual Integration Results

RT: 6.67
Area: 52521
Amount: 0.366444
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:21 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230025.D
Lims ID: IC ADD 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Jun-2023 23:14:58 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:54 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:42:36

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.475	6.475	0.000	56351	0.2500	0.2498	M
5 2,4-diamino-6-nitrotoluene	1	6.669	6.669	0.000	35180	0.2500	0.2455	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

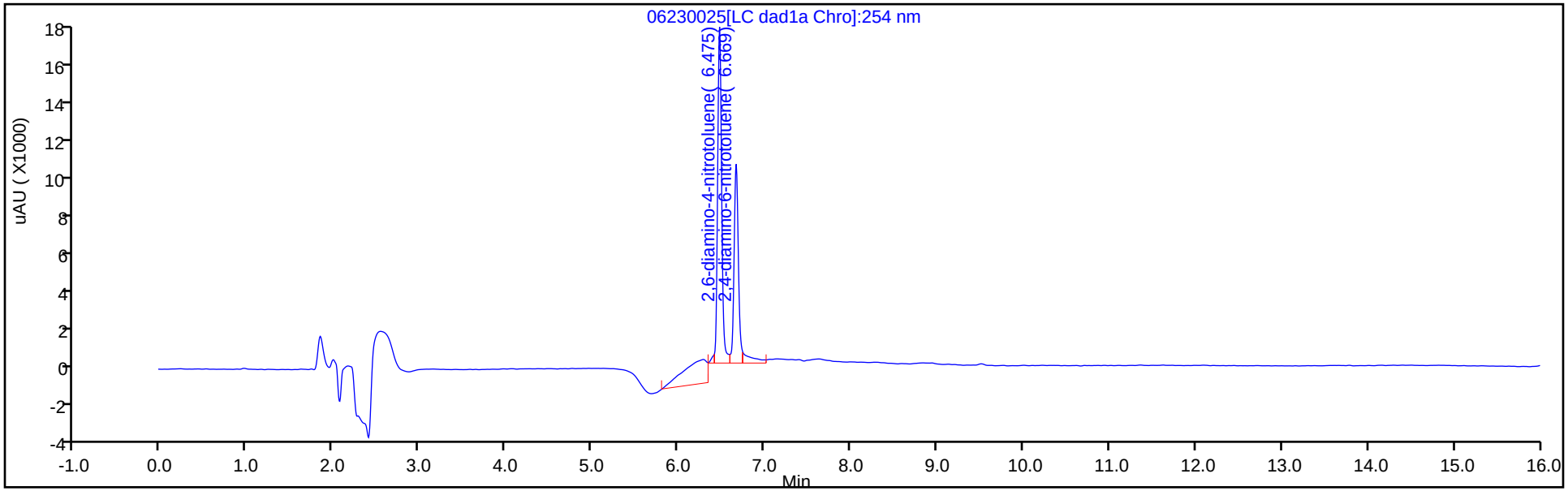
Report Date: 24-Jun-2023 12:55:54 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

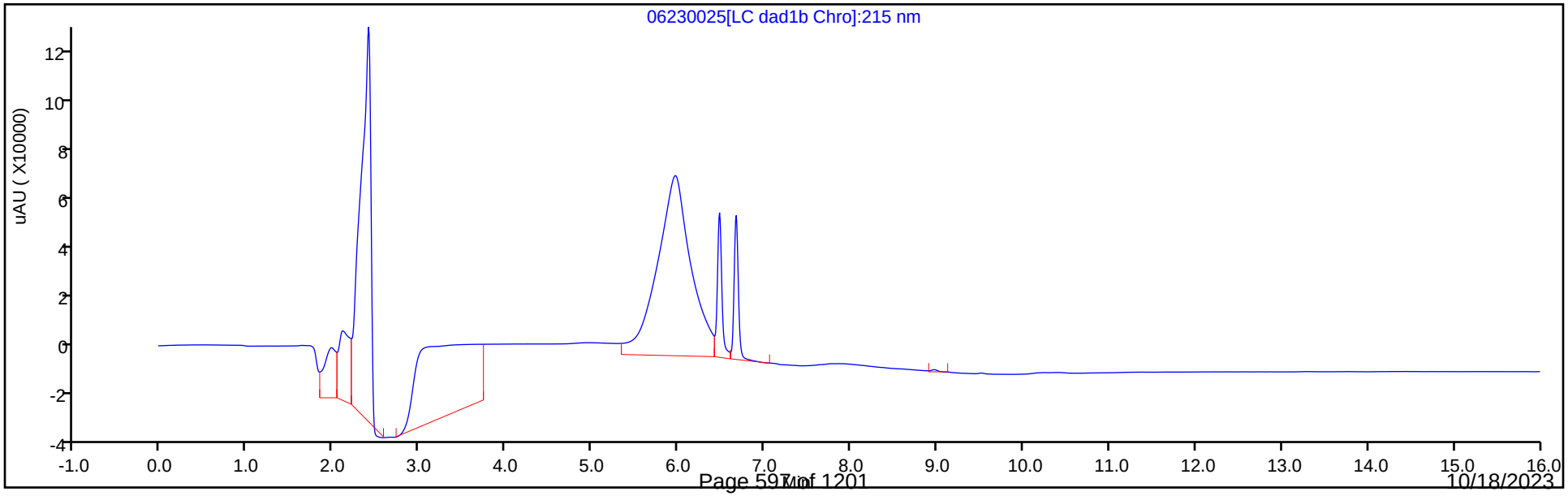
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230025.d

Injection Date:	23-Jun-2023 23:14:58	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 4			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

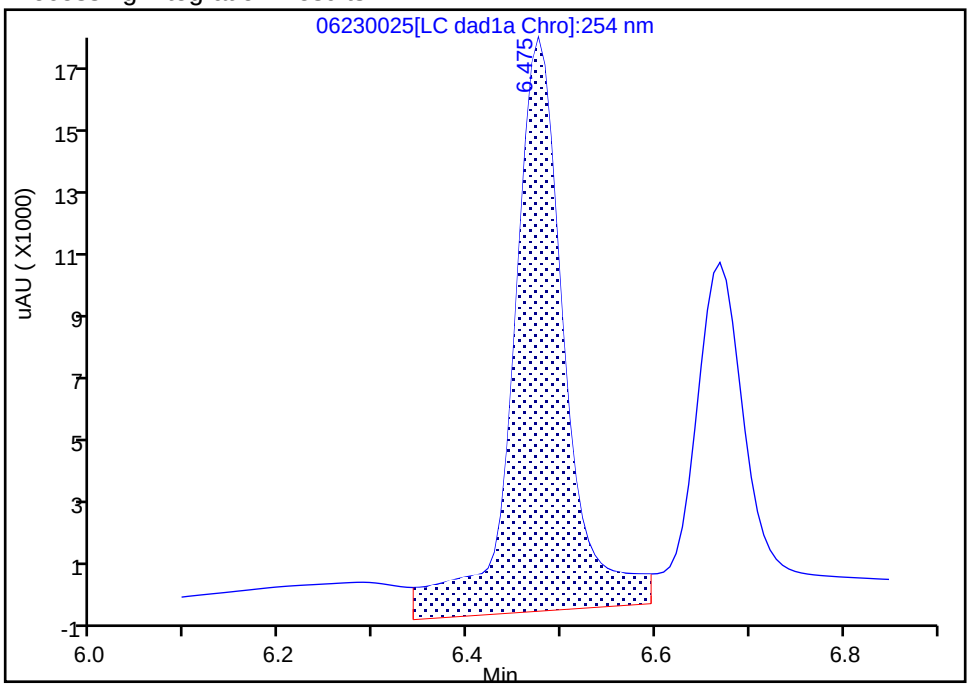
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230025.d				
Injection Date:	23-Jun-2023 23:14:58	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

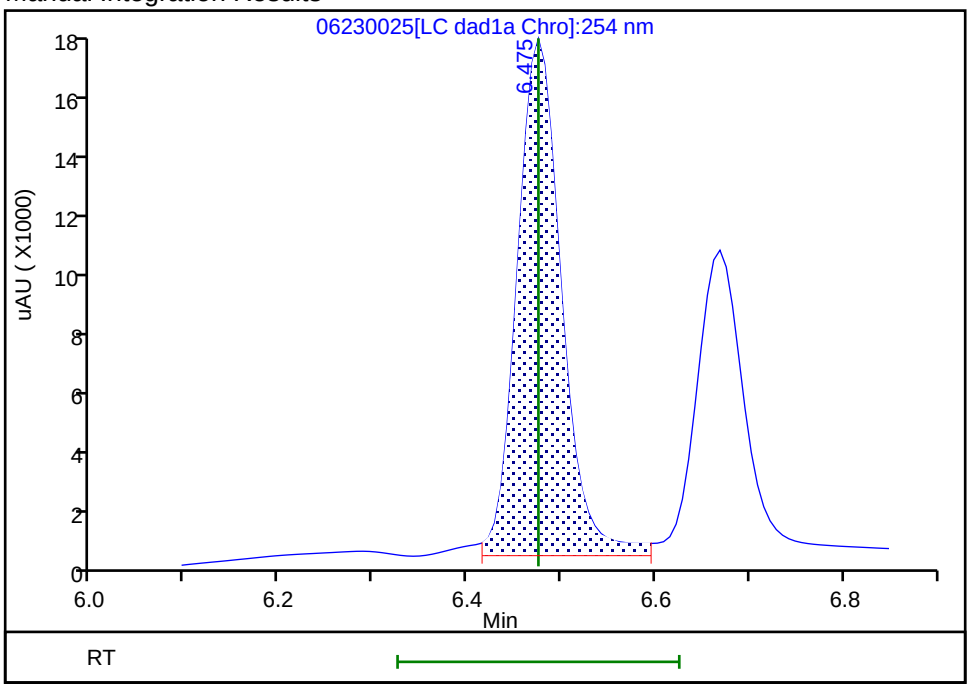
Processing Integration Results

RT: 6.48
Area: 69279
Amount: 0.268827
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 56351
Amount: 0.249821
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:34 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

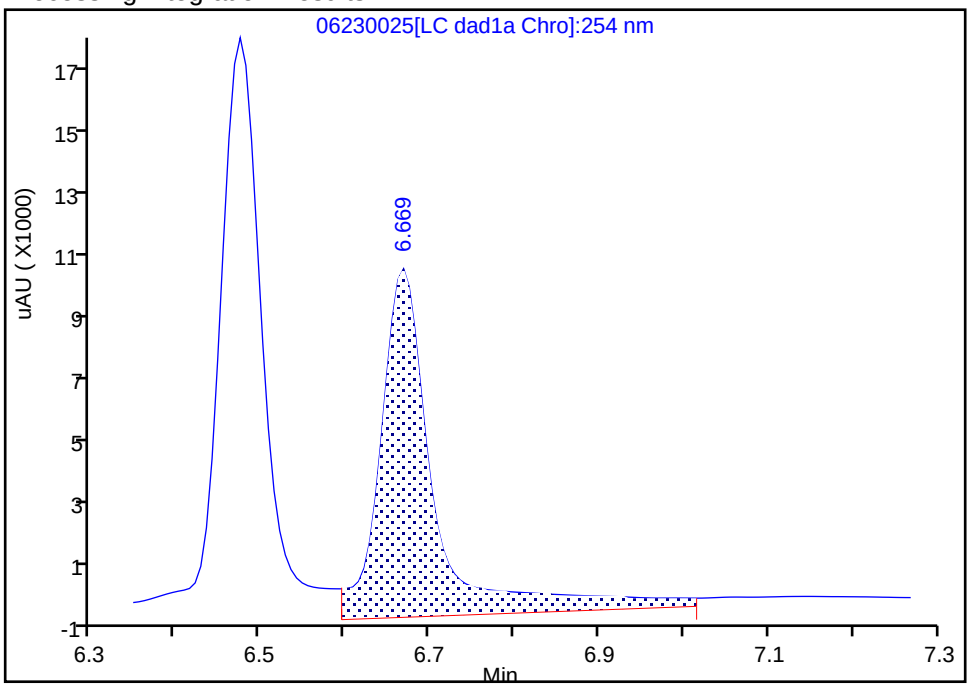
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230025.d				
Injection Date:	23-Jun-2023 23:14:58	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

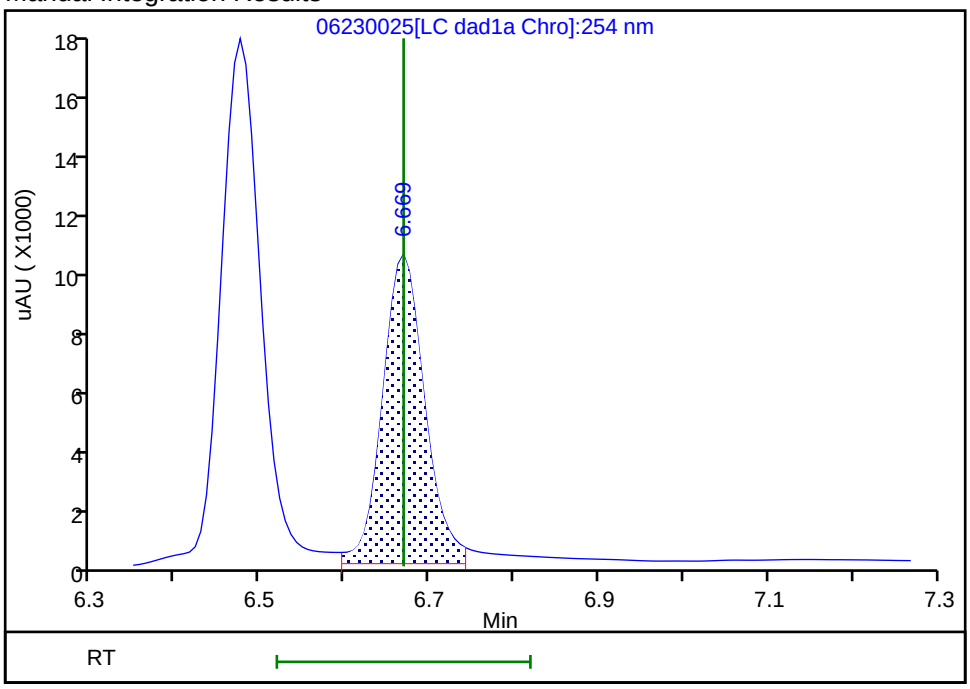
Processing Integration Results

RT: 6.67
Area: 47664
Amount: 0.288662
Amount Units: ug/mL



Manual Integration Results

RT: 6.67
Area: 35180
Amount: 0.245454
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:35 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230026.D				
Lims ID:	IC ADD 3				
Client ID:					
Sample Type:	IC	Calib Level:	3		
Inject. Date:	23-Jun-2023 23:37:56	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 3				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Sublist:	chrom-8330_X3*sub28				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	24-Jun-2023 12:55:54	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1681				
First Level Reviewer: LV5D		Date:	24-Jun-2023 10:42:44		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.471	6.475	-0.004	22652	0.1000	0.1004	M
5 2,4-diamino-6-nitrotoluene	1	6.664	6.669	-0.005	14442	0.1000	0.1008	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 5.00 Units: uL

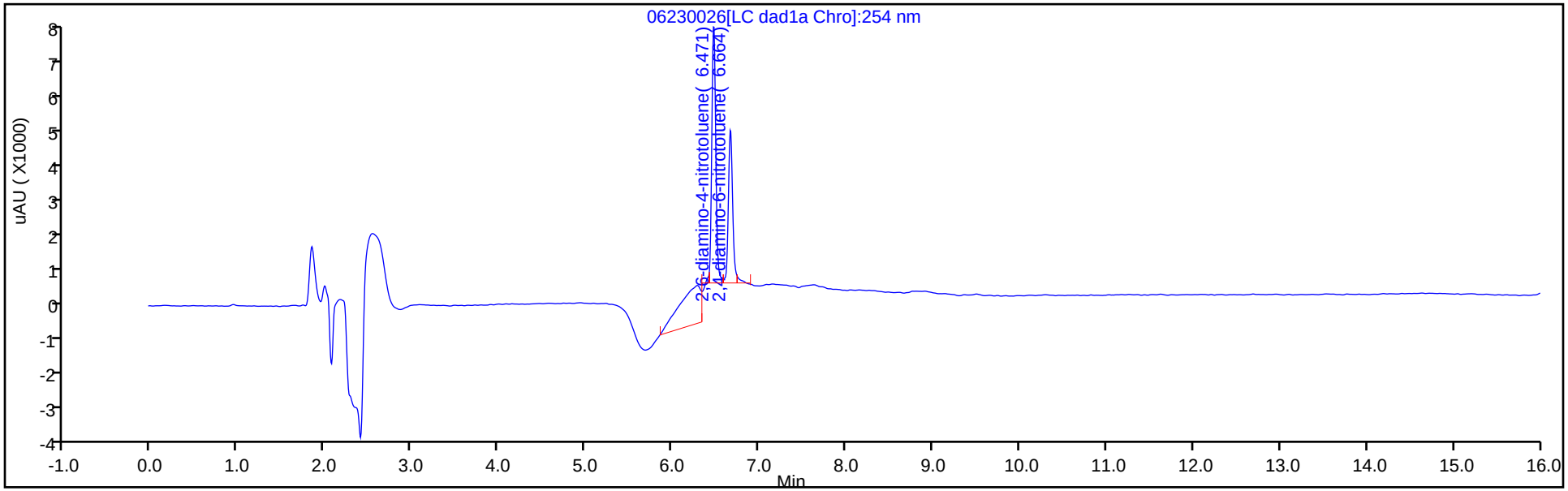
Report Date: 24-Jun-2023 12:55:54 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

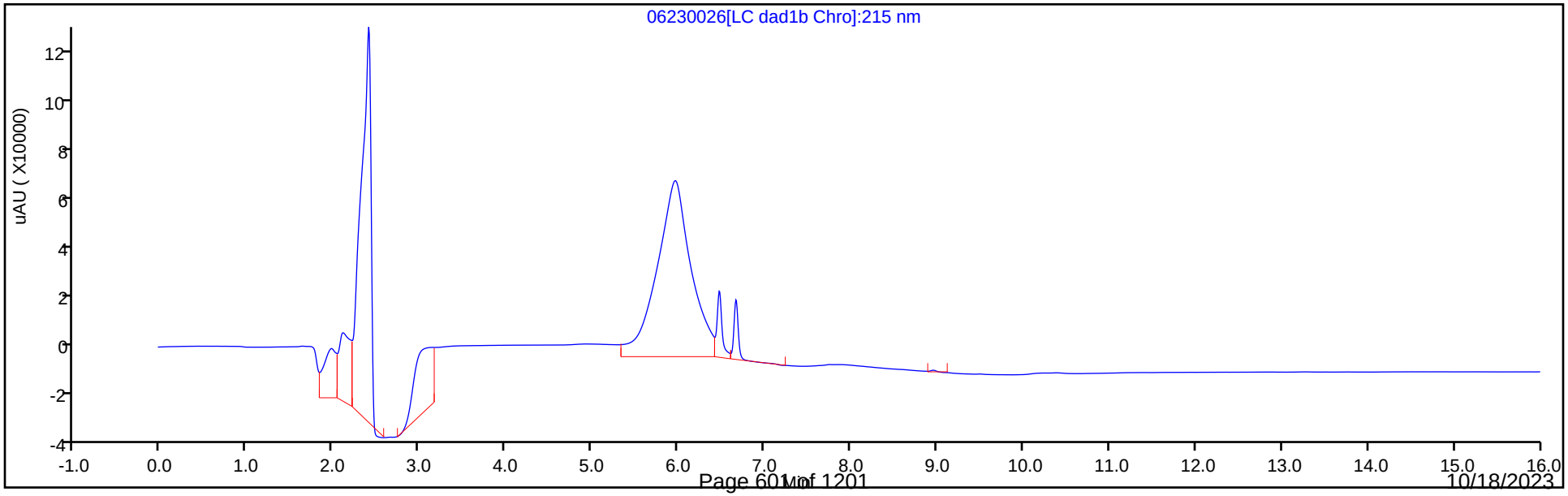
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230026.d

Injection Date:	23-Jun-2023 23:37:56	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 3			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

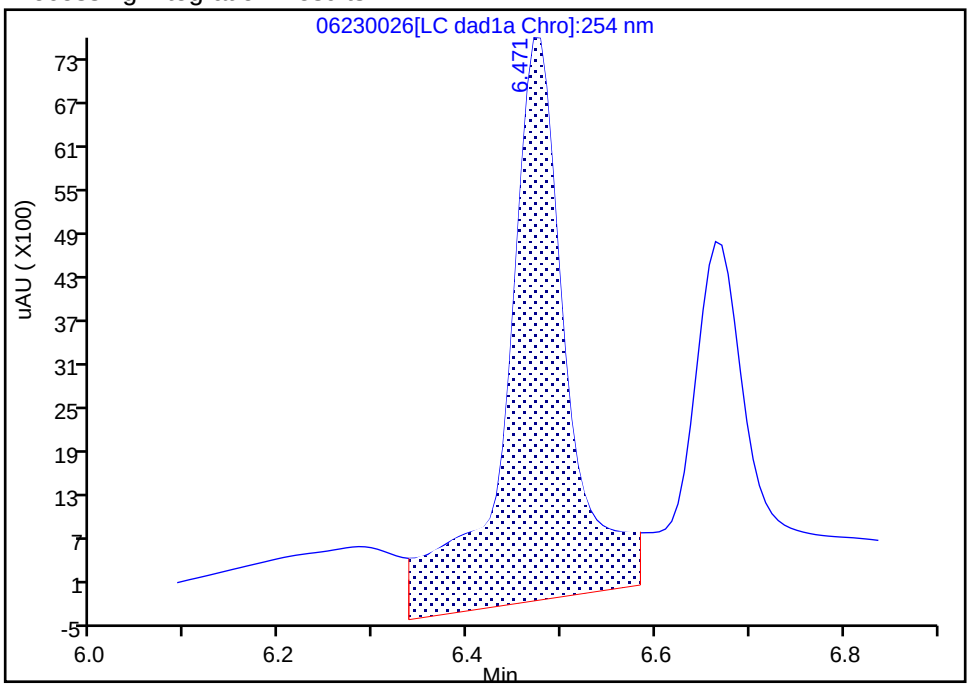
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230026.d				
Injection Date:	23-Jun-2023 23:37:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

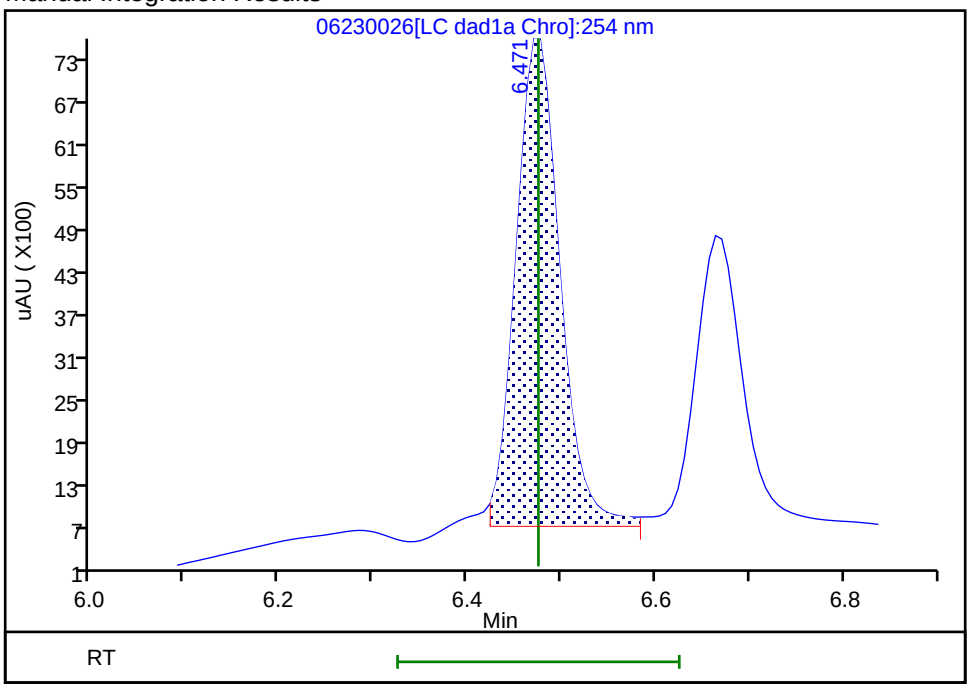
Processing Integration Results

RT: 6.47
Area: 34869
Amount: 0.105424
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 22652
Amount: 0.100423
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

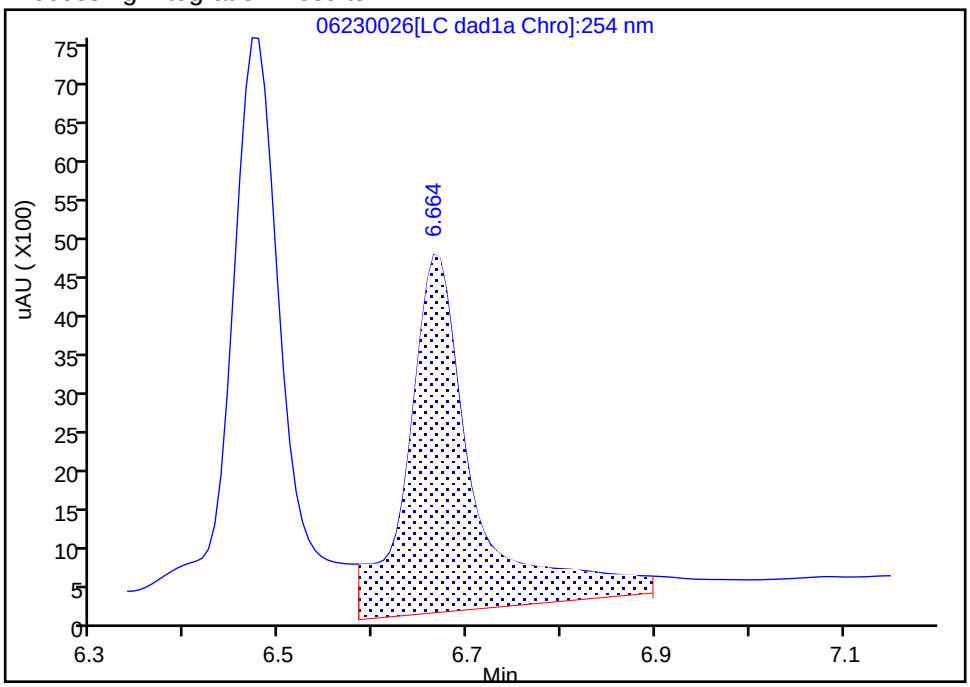
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230026.d				
Injection Date:	23-Jun-2023 23:37:56	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

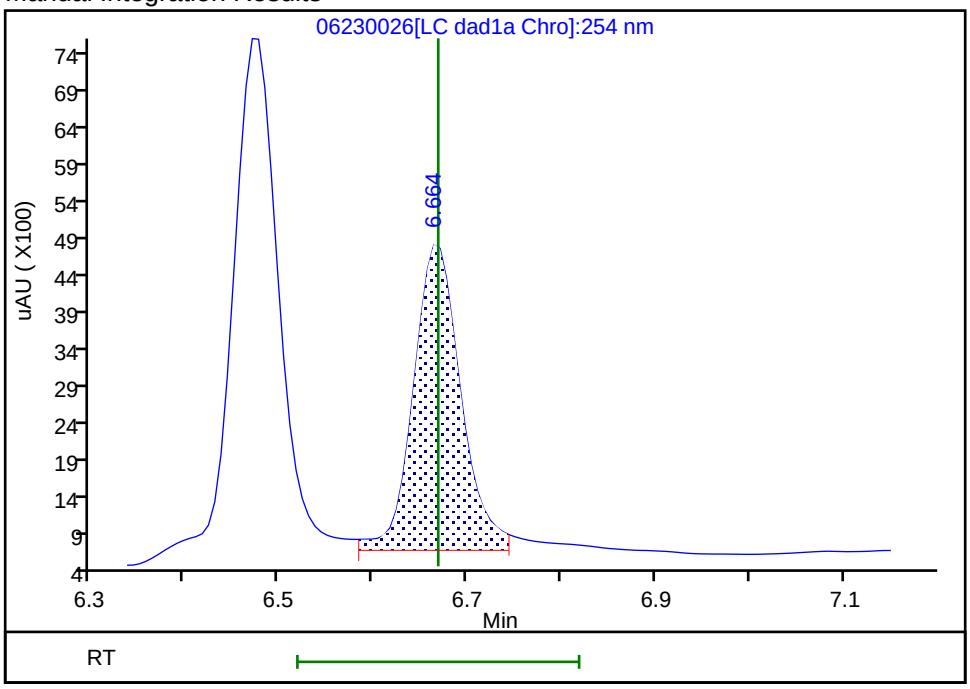
Processing Integration Results

RT: 6.66
Area: 22563
Amount: 0.092053
Amount Units: ug/mL



Manual Integration Results

RT: 6.66
Area: 14442
Amount: 0.100763
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:42:43 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230027.D
Lims ID: IC ADD 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 24-Jun-2023 00:00:54 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 2
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:55 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:42:52

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.478	6.475	0.003	10520	0.0400	0.0466	M
5 2,4-diamino-6-nitrotoluene	1	6.672	6.669	0.003	6600	0.0400	0.0460	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 2.00 Units: uL

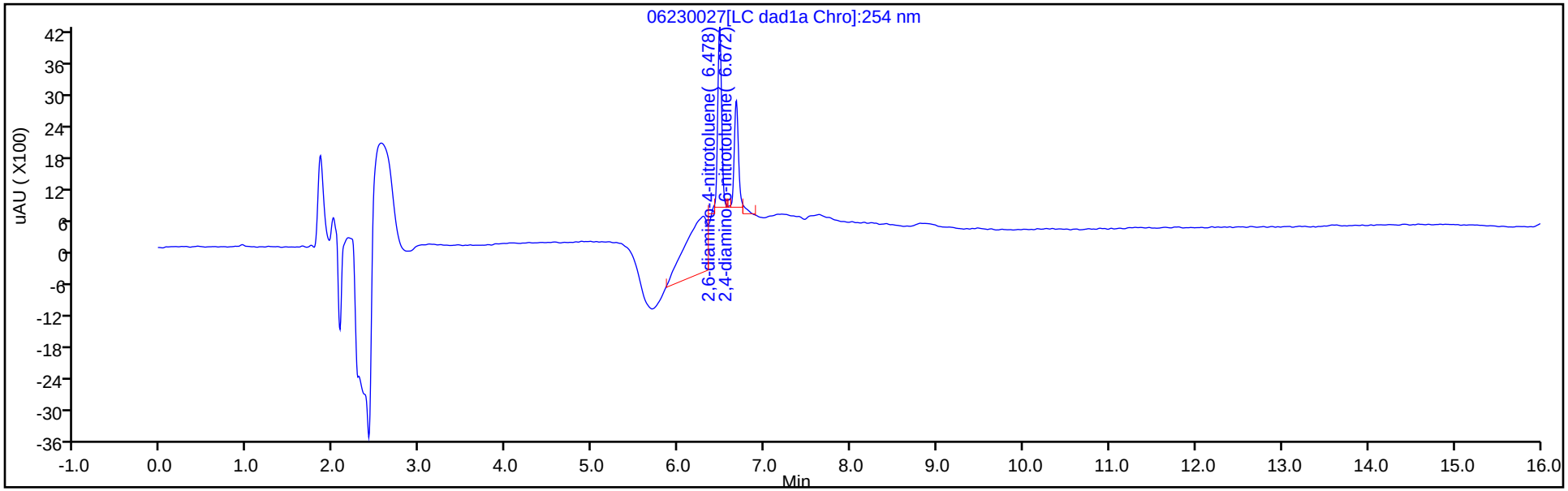
Report Date: 24-Jun-2023 12:55:55 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

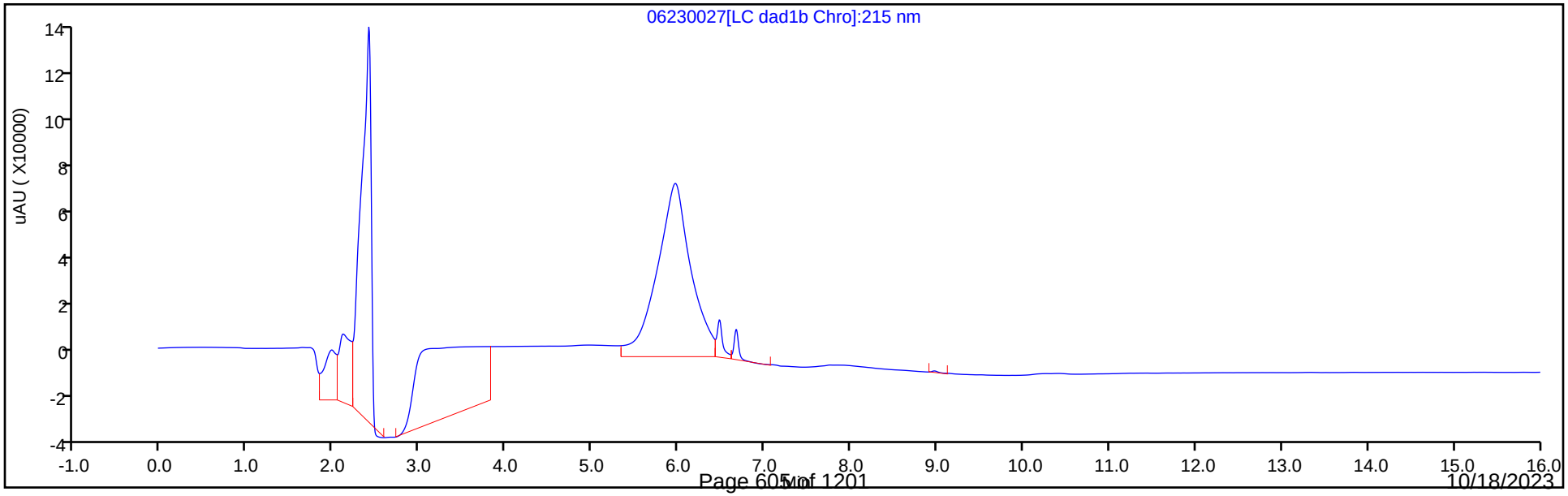
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230027.d

Injection Date:	24-Jun-2023 00:00:54	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 2			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

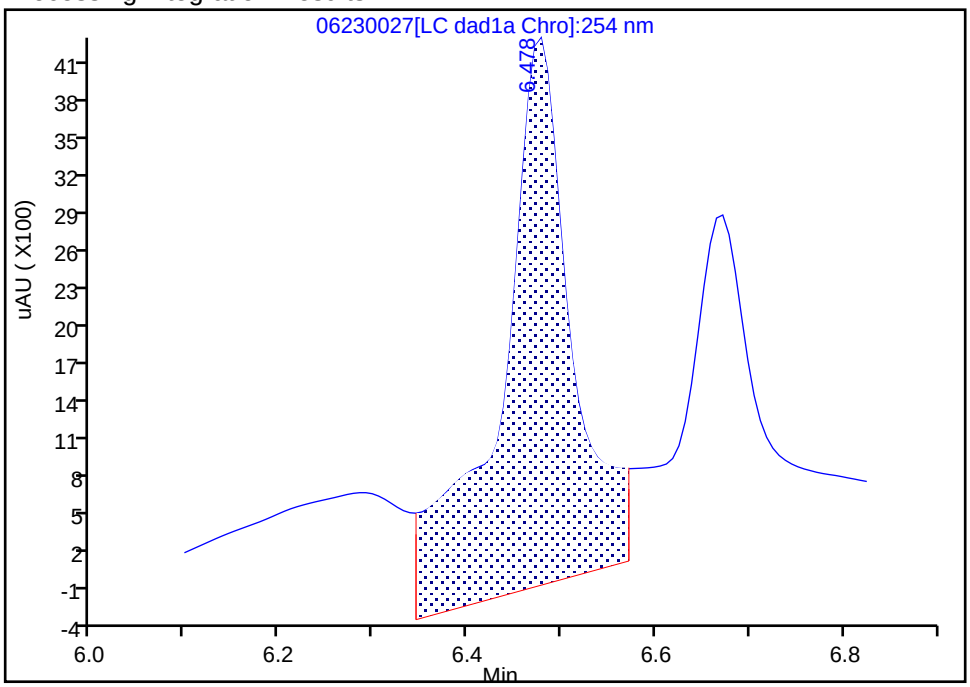
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230027.d				
Injection Date:	24-Jun-2023 00:00:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

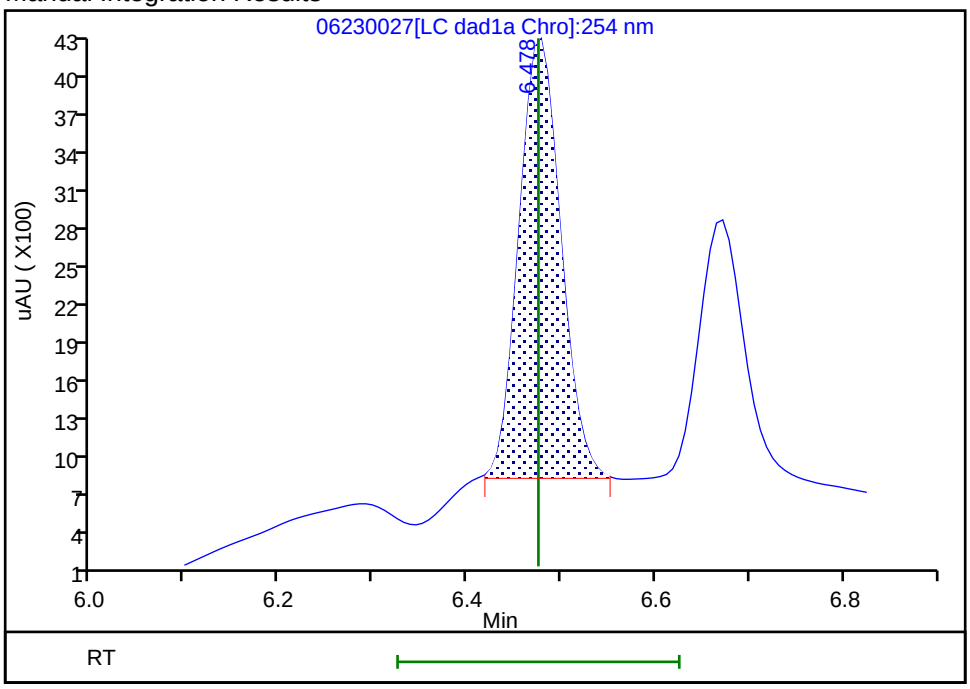
Processing Integration Results

RT: 6.48
Area: 22857
Amount: 0.065981
Amount Units: ug/mL



Manual Integration Results

RT: 6.48
Area: 10520
Amount: 0.046638
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 12:55:06 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

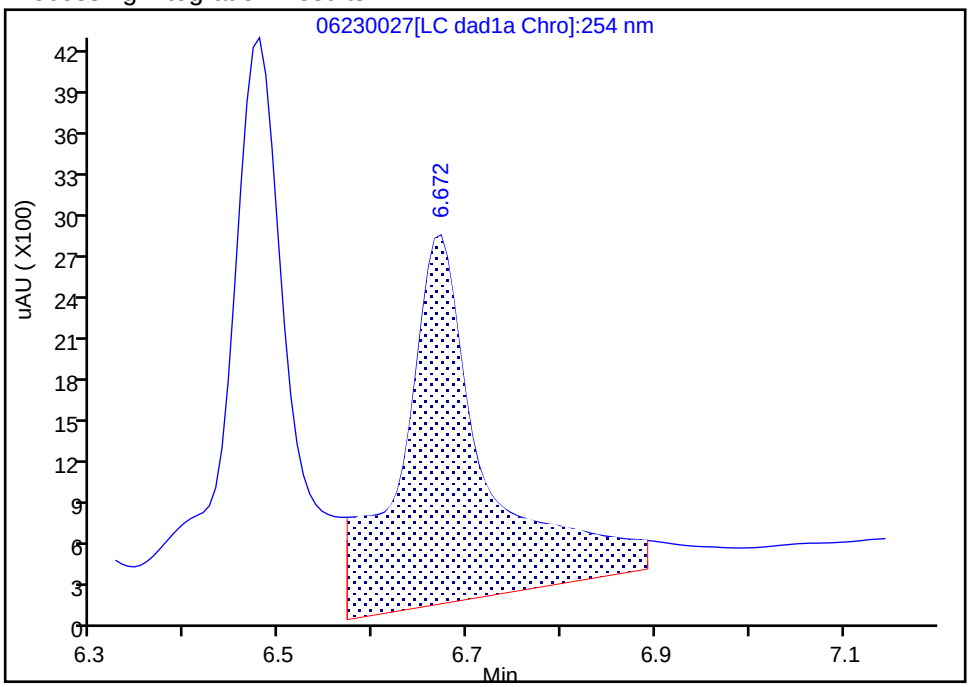
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230027.d				
Injection Date:	24-Jun-2023 00:00:54	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

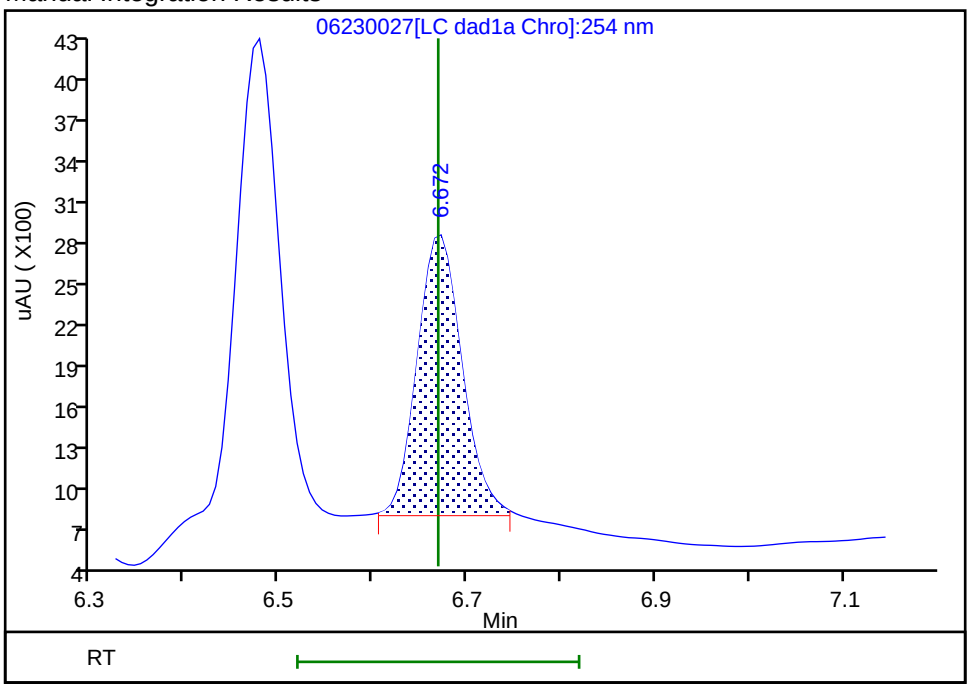
Processing Integration Results

RT: 6.67
Area: 16387
Amount: 0.066781
Amount Units: ug/mL



Manual Integration Results

RT: 6.67
Area: 6600
Amount: 0.046049
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 12:55:07 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D
Lims ID: IC ADD 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 24-Jun-2023 00:23:49 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:55 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:43:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.470	6.475	-0.005	4412	0.0200	0.0196	M
5 2,4-diamino-6-nitrotoluene	1	6.663	6.669	-0.006	3131	0.0200	0.0218	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 1.00 Units: uL

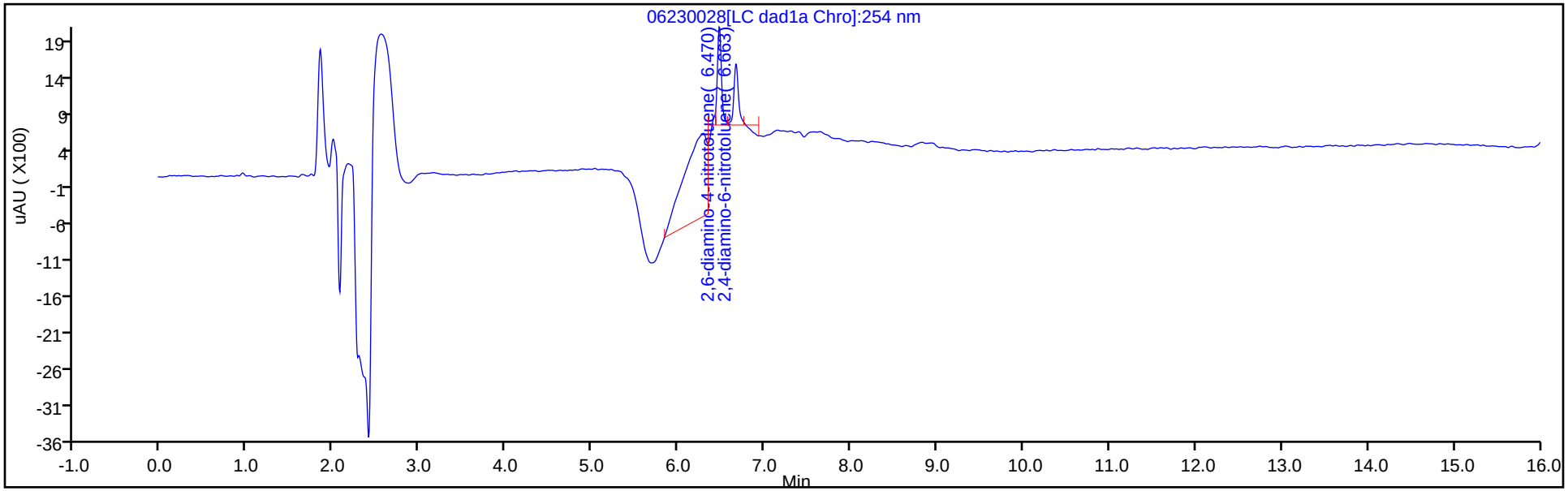
Report Date: 24-Jun-2023 12:55:55 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

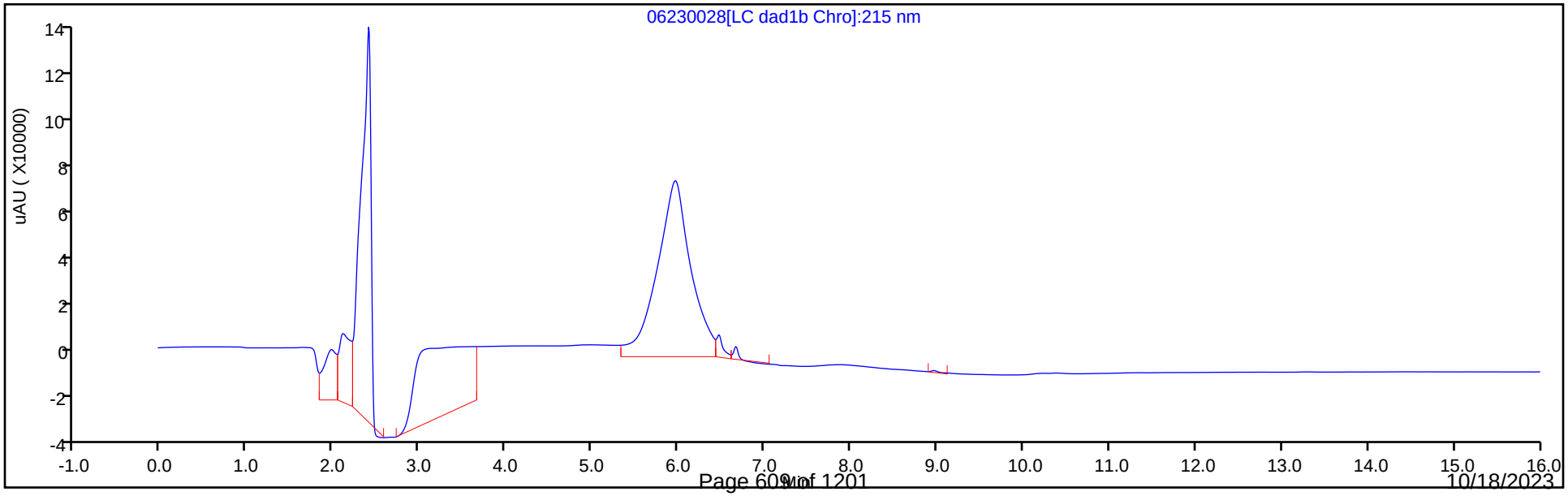
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230028.d

Injection Date:	24-Jun-2023 00:23:49	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	IC ADD 1			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

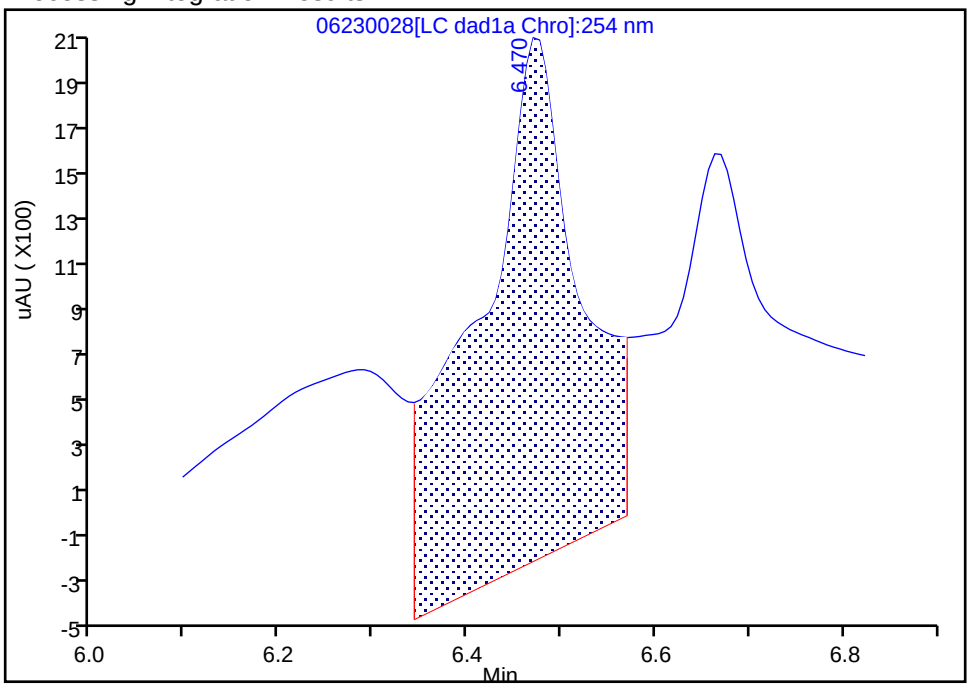
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230028.d				
Injection Date:	24-Jun-2023 00:23:49	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

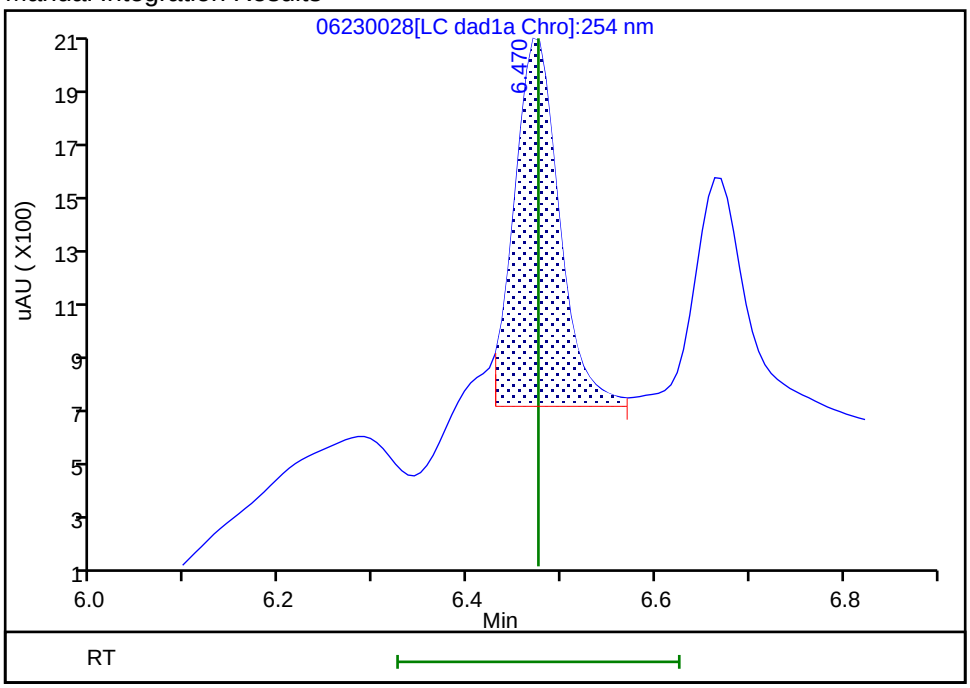
Processing Integration Results

RT: 6.47
Area: 17580
Amount: 0.056430
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 4412
Amount: 0.019560
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:43:00 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

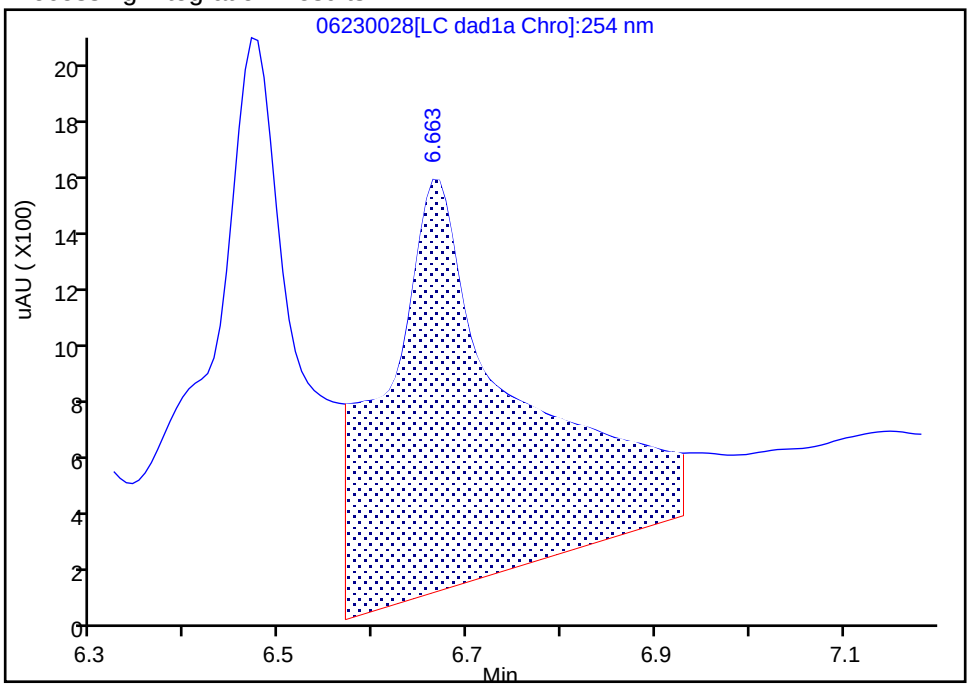
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230028.d				
Injection Date:	24-Jun-2023 00:23:49	Instrument ID:	CHHPLC_X3		
Lims ID:	IC ADD 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	28	Worklist Smp#:	28
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

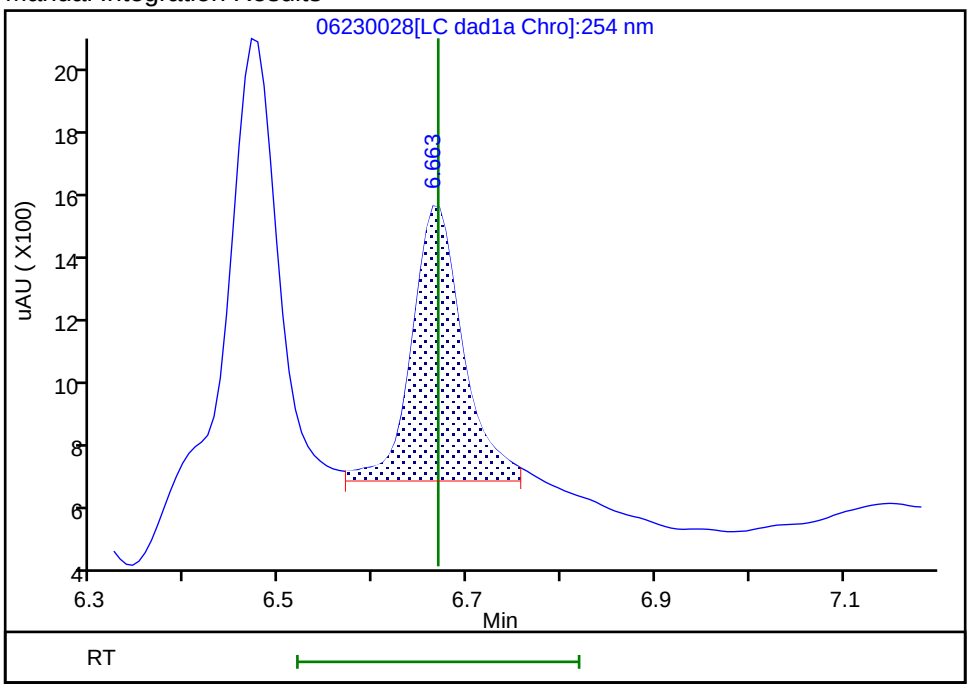
Processing Integration Results

RT: 6.66
Area: 14567
Amount: 0.066524
Amount Units: ug/mL



Manual Integration Results

RT: 6.66
Area: 3131
Amount: 0.021845
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:43:01 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Calibration / 2,6-diamino-4-nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

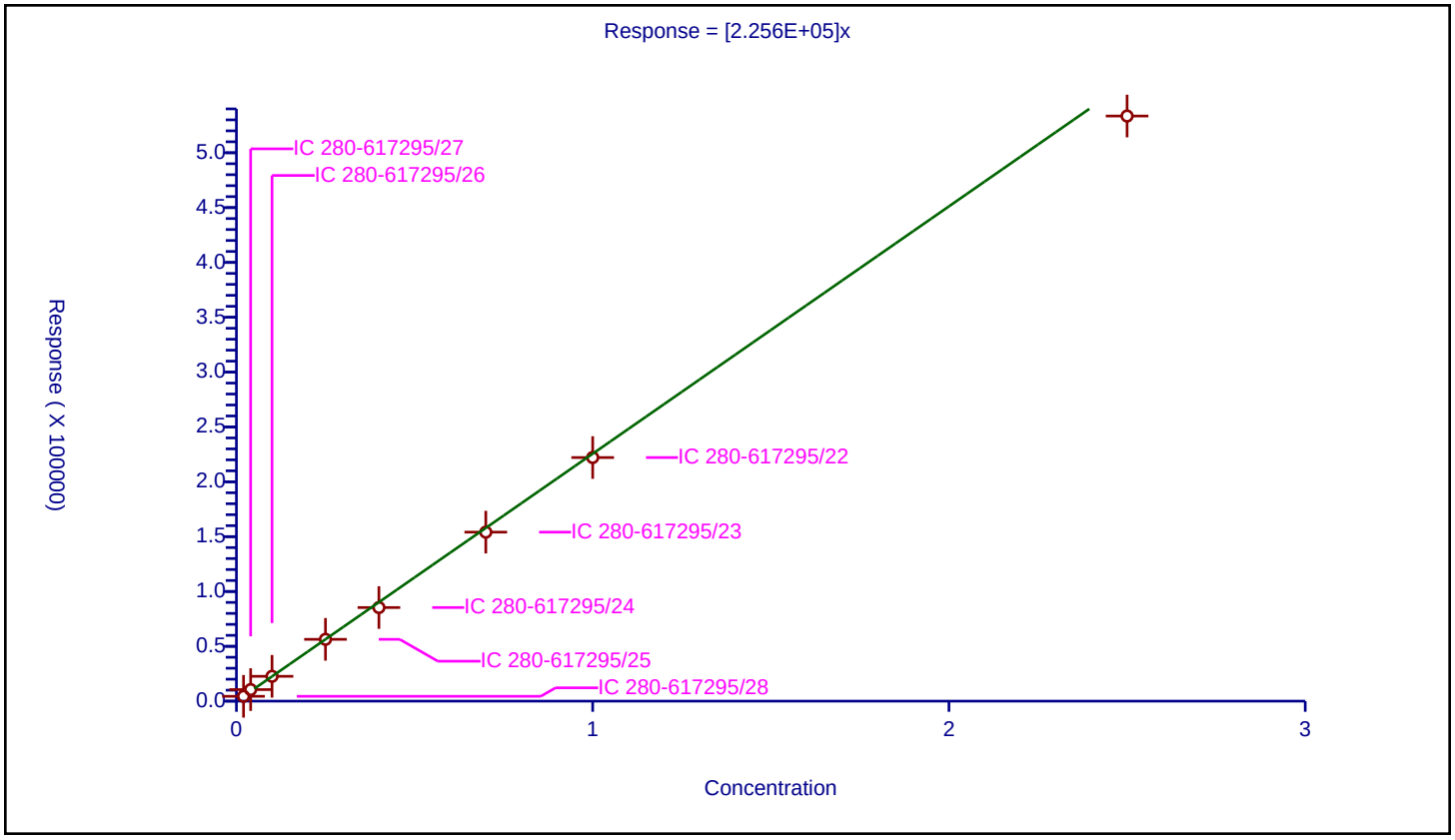
Curve Coefficients

Intercept:	0
Slope:	2.256E+05

Error Coefficients

Standard Error:	11800
Relative Standard Error:	7.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/28	0.02	4412.0			220600.0	Y
2	IC 280-617295/27	0.04	10520.0			263000.0	Y
3	IC 280-617295/26	0.1	22652.0			226520.0	Y
4	IC 280-617295/25	0.25	56351.0			225404.0	Y
5	IC 280-617295/24	0.4	85341.0			213352.5	Y
6	IC 280-617295/23	0.7	154088.0			220125.714286	Y
7	IC 280-617295/22	1.0	222122.0			222122.0	Y
8	IC 280-617295/21	2.5	533494.0			213397.6	Y



10/18/2023
8:21 PM

Calibration / 2,4-diamino-6-nitrotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

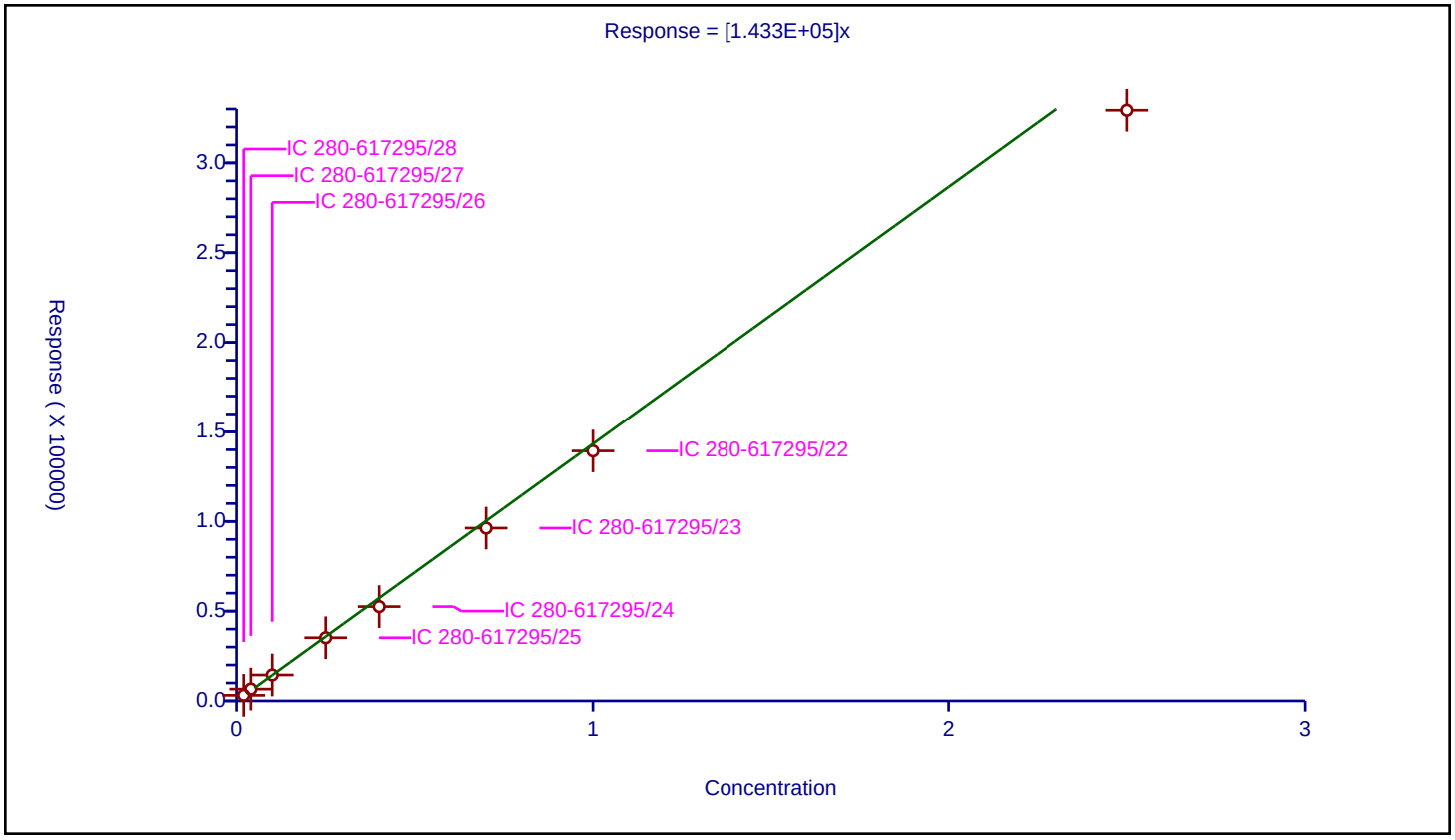
Curve Coefficients

Intercept:	0
Slope:	1.433E+05

Error Coefficients

Standard Error:	11300
Relative Standard Error:	8.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-617295/28	0.02	3131.0			156550.0	Y
2	IC 280-617295/27	0.04	6600.0			165000.0	Y
3	IC 280-617295/26	0.1	14442.0			144420.0	Y
4	IC 280-617295/25	0.25	35180.0			140720.0	Y
5	IC 280-617295/24	0.4	52521.0			131302.5	Y
6	IC 280-617295/23	0.7	96286.0			137551.428571	Y
7	IC 280-617295/22	1.0	139337.0			139337.0	Y
8	IC 280-617295/21	2.5	329323.0			131729.2	Y



10/18/2023
8:21 PM

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-182443-1 | Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 | Calibration End Date: 09/21/2023 00:40 | Calibration ID: 84766

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/18	09200018.D
Level 2	IC 280-626878/17	09200017.D
Level 3	IC 280-626878/16	09200016.D
Level 4	IC 280-626878/15	09200015.D
Level 5	IC 280-626878/14	09200014.D
Level 6	IC 280-626878/13	09200013.D
Level 7	IC 280-626878/12	09200012.D
Level 8	IC 280-626878/11	09200011.D
Level 9	IC 280-626878/10	09200010.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8	LVL 9		RT WINDOW	AVG RT
TNX	5.337	5.332	5.337	5.332	5.324	5.315	5.310	5.293	5.230		5.174 - 5.474	5.312
DNX	6.224	6.225	6.224	6.225	6.211	6.201	6.190	6.179	6.116		6.061 - 6.361	6.199
HMX	6.890	6.899	6.897	6.899	6.877	6.875	6.863	6.859	6.803		6.727 - 7.027	6.874
MNX	7.777	7.779	7.777	7.772	7.751	7.748	7.736	7.726	7.656		7.601 - 7.901	7.747
Picric acid	8.644	8.645	8.630	8.599	8.551	8.528	8.483	8.439	+++++		8.401 - 8.701	8.565
RDX	9.217	9.212	9.210	9.205	9.184	9.188	9.170	9.159	9.096		9.034 - 9.334	9.182
Nitrobenzene	11.817	11.812	11.810	11.805	11.790	11.788	11.783	11.766	11.683		11.640 - 11.940	11.784
3,5-Dinitroaniline	14.650	14.665	14.670	14.665	14.644	14.634	14.623	14.619	14.649		14.494 - 14.794	14.647
1,3-Dinitrobenzene	14.923	14.925	14.930	14.925	14.904	14.901	14.889	14.886	14.796		14.754 - 15.054	14.898
Nitroglycerin	15.497	15.505	15.503	15.505	15.484	15.481	15.469	15.473	15.409		15.334 - 15.634	15.481
2-Nitrotoluene	16.097	16.085	16.097	16.092	16.070	16.061	16.056	16.053	16.009		15.920 - 16.220	16.069
4-Nitrotoluene	16.323	16.325	16.323	16.325	16.297	16.294	16.289	16.279	16.089		16.147 - 16.447	16.283
4-Amino-2,6-dinitrotoluene	16.857	16.852	16.857	16.852	16.830	16.814	16.816	16.806	16.736		16.680 - 16.980	16.824
3-Nitrotoluene	17.177	17.179	17.190	17.185	17.164	17.148	17.149	17.139	17.069		17.014 - 17.314	17.156
2-Amino-4,6-dinitrotoluene	17.730	17.712	17.717	17.712	17.690	17.674	17.669	17.666	17.636		17.540 - 17.840	17.690
1,3,5-Trinitrobenzene	17.737	17.732	17.730	17.738	17.704	17.701	17.703	17.679	17.643		17.554 - 17.854	17.707
2,6-Dinitrotoluene	19.023	19.019	19.023	19.012	18.990	18.974	18.976	18.966	18.903		18.840 - 19.140	18.987
2,4-Dinitrotoluene	19.463	19.465	19.477	19.458	19.444	19.428	19.423	19.419	19.356		19.294 - 19.594	19.437
Tetryl	22.884	22.879	22.890	22.859	22.837	22.828	22.830	22.819	22.770		22.687 - 22.987	22.844
2,4,6-Trinitrotoluene	23.684	23.685	23.697	23.672	23.657	23.641	23.650	23.633	23.590		23.507 - 23.807	23.657
PETN	25.010	24.992	24.997	24.972	24.957	24.955	24.956	24.939	24.916		24.807 - 25.107	24.966
1,2-Dinitrobenzene	12.797	12.812	12.803	12.805	12.784	12.781	12.776	12.766	12.689		12.634 - 12.934	12.779

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-182443-1 Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 Calibration End Date: 09/21/2023 00:40 Calibration ID: 84766

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/18	09200018.D
Level 2	IC 280-626878/17	09200017.D
Level 3	IC 280-626878/16	09200016.D
Level 4	IC 280-626878/15	09200015.D
Level 5	IC 280-626878/14	09200014.D
Level 6	IC 280-626878/13	09200013.D
Level 7	IC 280-626878/12	09200012.D
Level 8	IC 280-626878/11	09200011.D
Level 9	IC 280-626878/10	09200010.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
TNX	426122 385910 388275	407079 379070	390608 387153	386969 384720	Ave		392878.452				3.7		20.0			
DNX	318182 286689 285630	278571 280957	285934 285305	290460 284330	Ave		288450.783				4.0		20.0			
HMX	235400 177584 172745	201050 179383	202440 176034	190280 175985	Ave		190100.065				10.7		20.0			
MNX	274636 262554 269767	269237 257031	268243 260122	265210 258751	Ave		265061.302				2.2		20.0			
Picric acid	119800 145460 +++++	157350 147085	157140 145669	152330 145890	Lin2	-213.78437	151389.193							0.9950		0.9900
RDX	278400 204308 200182	239350 206243	233380 203574	215160 203760	Ave		220484.087				11.7		20.0			
Nitrobenzene	437400 364488 371998	393250 382385	380460 372626	380210 373244	Ave		384006.746				5.6		20.0			
3,5-Dinitroaniline	415500 412436 390037	423450 419573	420600 417741	419900 418073	Lin2	64.4823579	413900.153							0.9990		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-182443-1 Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 Calibration End Date: 09/21/2023 00:40 Calibration ID: 84766

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
1,3-Dinitrobenzene	595800 576616 602271	575850 579778	588620 581440	585790 582877	Ave		585449.078				1.5		20.0			
Nitroglycerin	130160 125216 124281	126080 125674	140174 126313	132632 125626	Ave		128461.817				4.0		20.0			
2-Nitrotoluene	244200 231140 223425	249800 234030	244680 235174	240280 235634	Ave		237595.943				3.4		20.0			
4-Nitrotoluene	180200 209496 225581	217450 215010	227960 215733	218050 214152	Ave		213736.851				6.5		20.0			
4-Amino-2,6-dinitrotoluene	284400 265300 269003	277200 267965	271420 269809	273710 269511	Ave		272035.308				2.1		20.0			
3-Nitrotoluene	275800 264028 269186	263400 269978	274740 271586	274840 271734	Ave		270587.868				1.7		20.0			
2-Amino-4,6-dinitrotoluene	389900 369576 419998	376850 405623	369100 413330	415480 366541	Ave		391821.900				5.6		20.0			
1,3,5-Trinitrobenzene	411800 410060 371075	401300 383195	424300 378994	380990 427317	Ave		398781.276				5.2		20.0			
2,6-Dinitrotoluene	309100 264264 263539	287950 267358	270000 266386	272510 267331	Ave		274270.779				5.5		20.0			
2,4-Dinitrotoluene	560200 533832 541816	560250 543593	530260 542664	541730 544526	Ave		544318.932				1.9		20.0			
Tetryl	319900 301696 302711	311900 306023	313200 304153	306400 305669	Ave		307961.284				1.9		20.0			
2,4,6-Trinitrotoluene	381400 393500 394885	394000 397820	396420 396150	401930 398106	Ave		394912.356				1.4		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-182443-1 Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 Calibration End Date: 09/21/2023 00:40 Calibration ID: 84766

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5 LVL 9	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
PETN	108320 131057 134771	117620 132432	128544 132587	131058 132703	Lin2	-2595.5850	133137.092							1.0000		0.9900
1,2-Dinitrobenzene	310000 251840 252936	304350 256813	257380 254446	257650 255258	Ave		266741.402				8.6		20.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-182443-1 | Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 | Calibration End Date: 09/21/2023 00:40 | Calibration ID: 84766

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/18	09200018.D
Level 2	IC 280-626878/17	09200017.D
Level 3	IC 280-626878/16	09200016.D
Level 4	IC 280-626878/15	09200015.D
Level 5	IC 280-626878/14	09200014.D
Level 6	IC 280-626878/13	09200013.D
Level 7	IC 280-626878/12	09200012.D
Level 8	IC 280-626878/11	09200011.D
Level 9	IC 280-626878/10	09200010.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
TNX	Ave	4274 152083	8166 271820	19589 385874	38813 973600	96767	0.0100 0.401	0.0201 0.702	0.0502 1.00	0.100 2.51	0.251
DNX	Ave	3185 112495	5577 199913	14311 284614	29075 714789	71744	0.0100 0.400	0.0200 0.701	0.0501 1.00	0.100 2.50	0.250
HMX	Ave	2354 71753	4021 123224	10122 175985	19028 431862	44396	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
MNX	Ave	3205 119982	6284 212494	15652 301963	30950 787045	76600	0.0117 0.467	0.0233 0.817	0.0584 1.17	0.117 2.92	0.292
Picric acid	Lin2	1198 58834	3147 101968	7857 145890	15233 +++++	36365	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 +++++	0.250
RDX	Ave	2784 82497	4787 142502	11669 203760	21516 500455	51077	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitrobenzene	Ave	4374 152954	7865 260838	19023 373244	38021 929995	91122	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3,5-Dinitroaniline	Lin2	4155 167829	8469 292419	21030 418073	41990 975092	103109	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
1,3-Dinitrobenzene	Ave	5958 231911	11517 407008	29431 582877	58579 1505678	144154	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Nitroglycerin	Ave	13016 502697	25216 884192	70087 1256262	132632 3107019	313040	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
2-Nitrotoluene	Ave	2442 93612	4996 164622	12234 235634	24028 558563	57785	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Nitrotoluene	Ave	1802 86004	4349 151013	11398 214152	21805 563952	52374	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
4-Amino-2,6-dinitrotoluene	Ave	2844 107186	5544 188866	13571 269511	27371 672508	66325	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
3-Nitrotoluene	Ave	2758 107991	5268 190110	13737 271734	27484 672964	66007	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2-Amino-4,6-dinitrotoluene	Ave	3899	7537	18455	41548	92394	0.0100	0.0200	0.0500	0.100	0.250

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-182443-1 | Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/20/2023 20:01 | Calibration End Date: 09/21/2023 00:40 | Calibration ID: 84766

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
		162249	289331	366541	1049994		0.400	0.700	1.00	2.50	
1,3,5-Trinitrobenzene	Ave	4118 153278	8026 265296	21215 427317	38099 927688	102515	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,6-Dinitrotoluene	Ave	3091 106943	5759 186470	13500 267331	27251 658847	66066	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4-Dinitrotoluene	Ave	5602 217437	11205 379865	26513 544526	54173 1354539	133458	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
Tetryl	Ave	3199 122409	6238 212907	15660 305669	30640 756778	75424	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
2,4,6-Trinitrotoluene	Ave	3814 159128	7880 277305	19821 398106	40193 987213	98375	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250
PETN	Lin2	10832 529728	23524 928111	64272 1327029	131058 3369275	327642	0.100 4.00	0.200 7.00	0.500 10.0	1.00 25.0	2.50
1,2-Dinitrobenzene	Ave	3100 102725	6087 178112	12869 255258	25765 632341	62960	0.0100 0.400	0.0200 0.700	0.0500 1.00	0.100 2.50	0.250

Curve Type Legend:
Ave = Average
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D
Lims ID: IC INT 9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 20-Sep-2023 20:01:08 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 9
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:12 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:52:50

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.230	5.324	-0.094	973600	2.51	2.48	
4 DNX	1	6.116	6.211	-0.095	714789	2.50	2.48	
5 HMX	1	6.803	6.877	-0.074	431862	2.50	2.27	
6 MNX	1	7.656	7.751	-0.095	787045	2.92	2.97	
7 2,4,6-Trinitrophenol	1	8.356	8.551	-0.195	324534	2.50	2.15	a
8 RDX	1	9.096	9.184	-0.088	500455	2.50	2.27	
9 Nitrobenzene	1	11.683	11.790	-0.107	929995	2.50	2.42	
$ 10 1,2-Dinitrobenzene	1	12.689	12.784	-0.095	632341	2.50	2.37	
11 3,5-Dinitroaniline	1	14.649	14.644	0.005	975092	2.50	2.36	Ma
12 1,3-Dinitrobenzene	1	14.796	14.904	-0.108	1505678	2.50	2.57	M
13 Nitroglycerin	2	15.409	15.484	-0.075	3107019	25.0	24.2	
14 o-Nitrotoluene	1	16.009	16.070	-0.061	558563	2.50	2.35	M
16 p-Nitrotoluene	1	16.089	16.297	-0.208	563952	2.50	2.64	Ma
17 4-Amino-2,6-dinitrotoluene	1	16.736	16.830	-0.094	672508	2.50	2.47	
18 m-Nitrotoluene	1	17.069	17.164	-0.095	672964	2.50	2.49	
19 2-Amino-4,6-dinitrotoluene	1	17.636	17.690	-0.054	1049994	2.50	2.68	M
20 1,3,5-Trinitrobenzene	1	17.643	17.704	-0.061	927688	2.50	2.33	Ma
21 2,6-Dinitrotoluene	1	18.903	18.990	-0.087	658847	2.50	2.40	
22 2,4-Dinitrotoluene	1	19.356	19.444	-0.088	1354539	2.50	2.49	
23 Tetryl	1	22.770	22.837	-0.067	756778	2.50	2.46	
24 2,4,6-Trinitrotoluene	1	23.590	23.657	-0.067	987213	2.50	2.50	
25 PETN	2	24.916	24.957	-0.041	3369275	25.0	25.3	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added: 250.00	Units: uL
8330 DMT_00015	Amount Added: 125.00	Units: uL

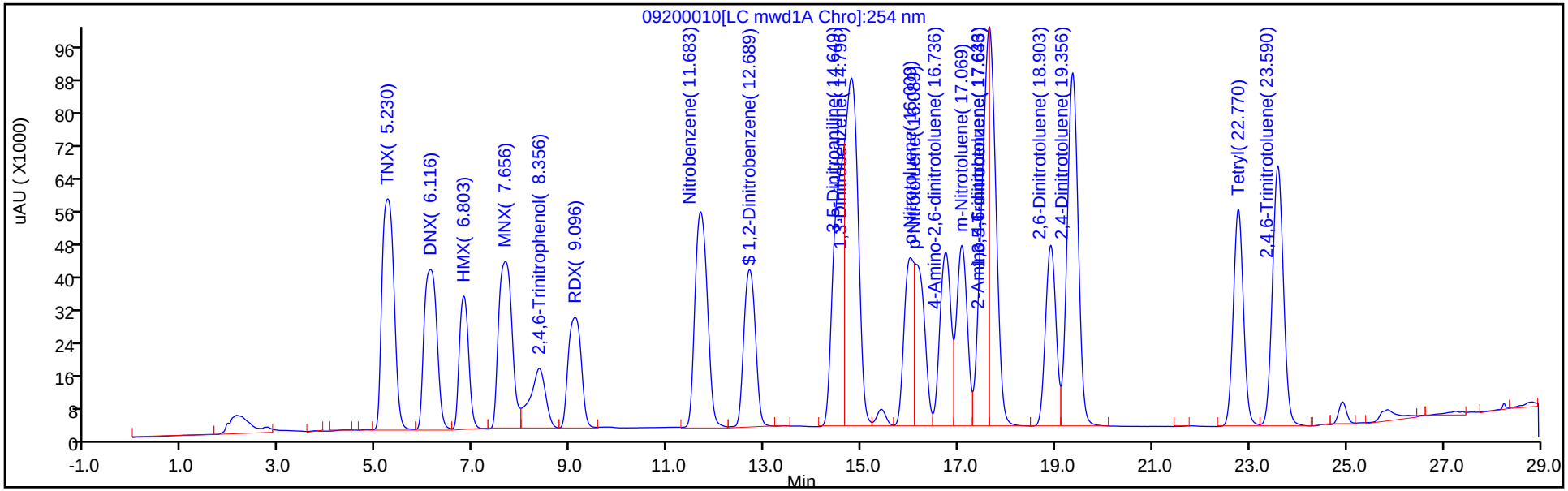
Report Date: 21-Sep-2023 16:09:12 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

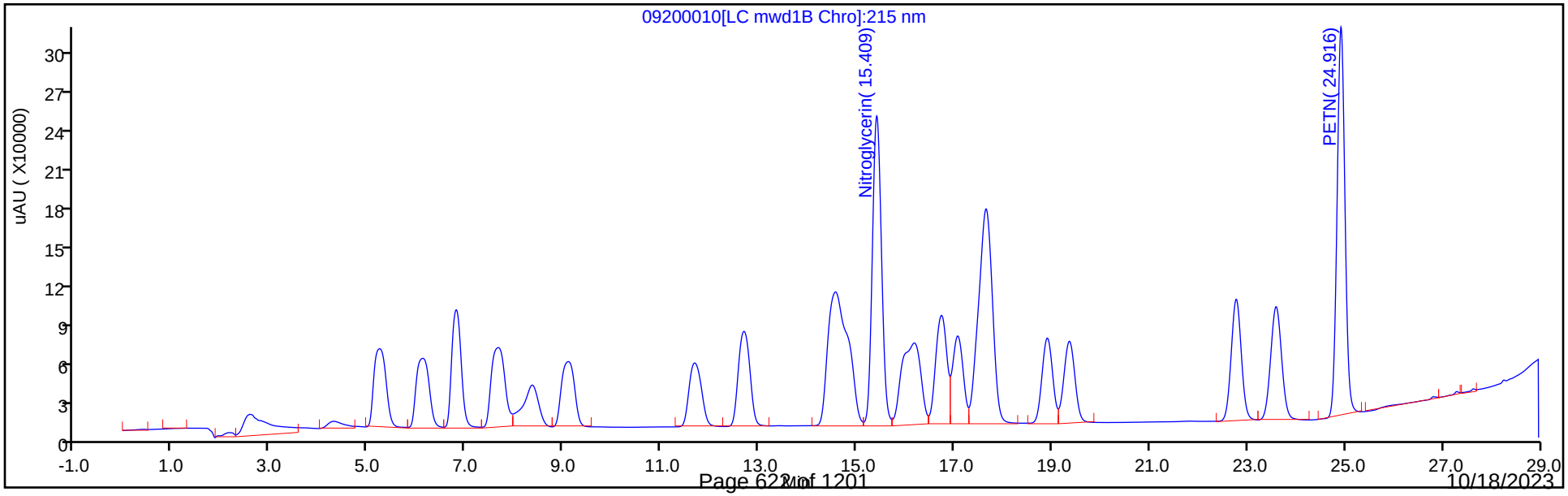
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D

Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 9			Worklist Smp#:	10
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023 8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

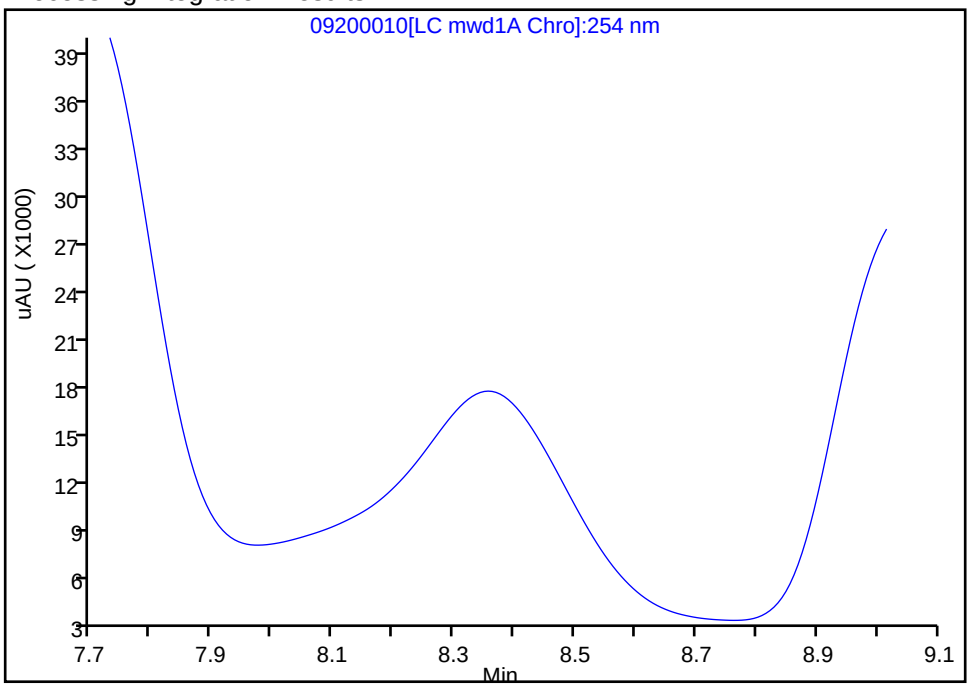
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D				
Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

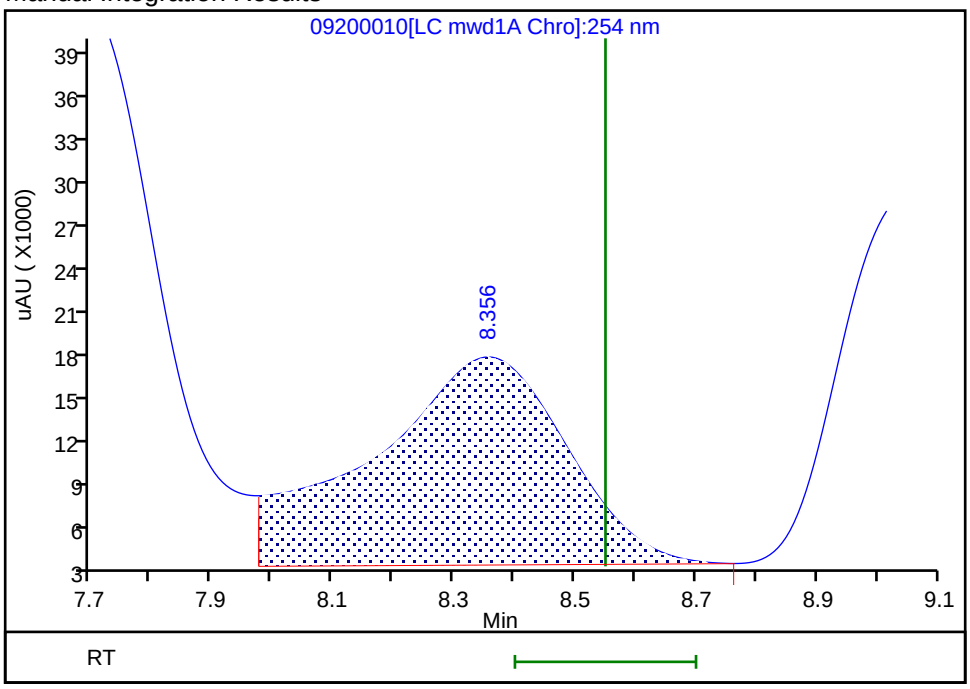
Not Detected
Expected RT: 8.55

Processing Integration Results



Manual Integration Results

RT: 8.36
Area: 324534
Amount: 2.145119
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:20 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Denver

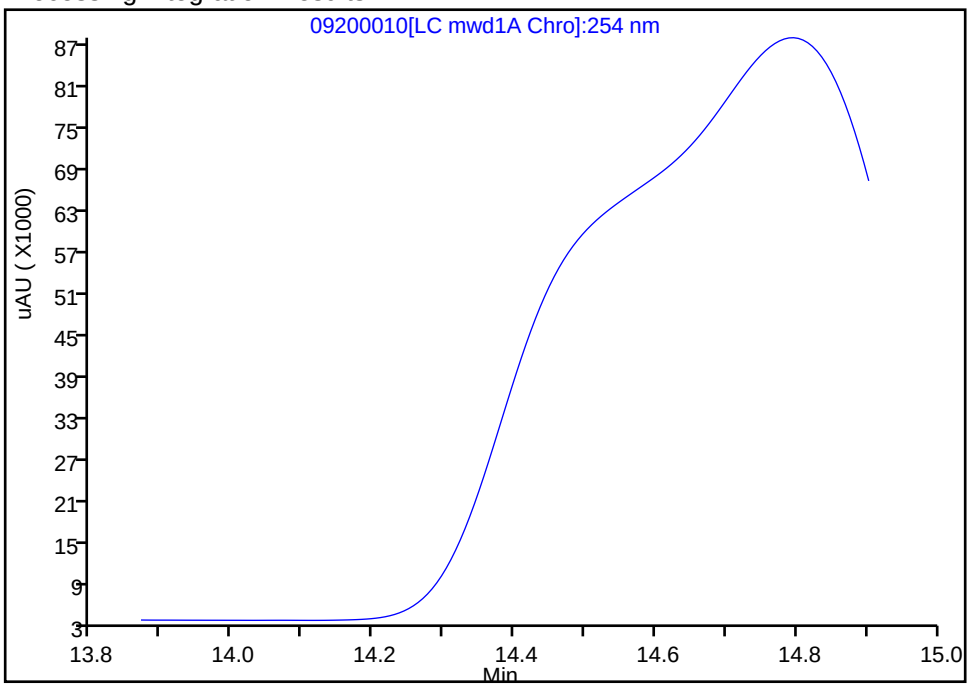
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D				
Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

11 3,5-Dinitroaniline, CAS: 618-87-1

Signal: 1

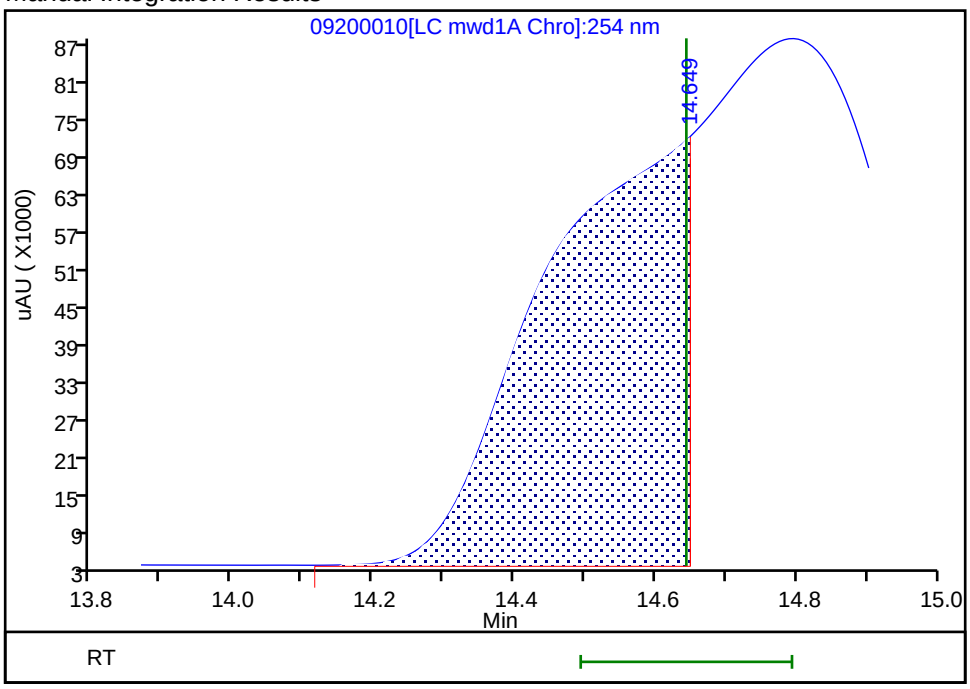
Not Detected
Expected RT: 14.64

Processing Integration Results



Manual Integration Results

RT: 14.65
Area: 975092
Amount: 2.355707
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:30 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

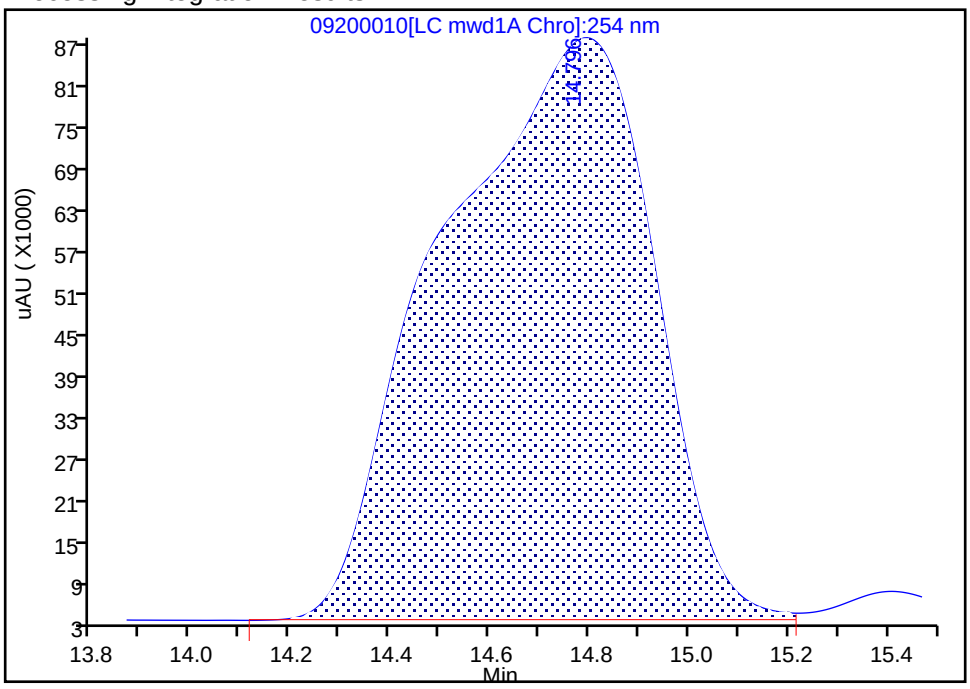
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D				
Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

12 1,3-Dinitrobenzene, CAS: 99-65-0

Signal: 1

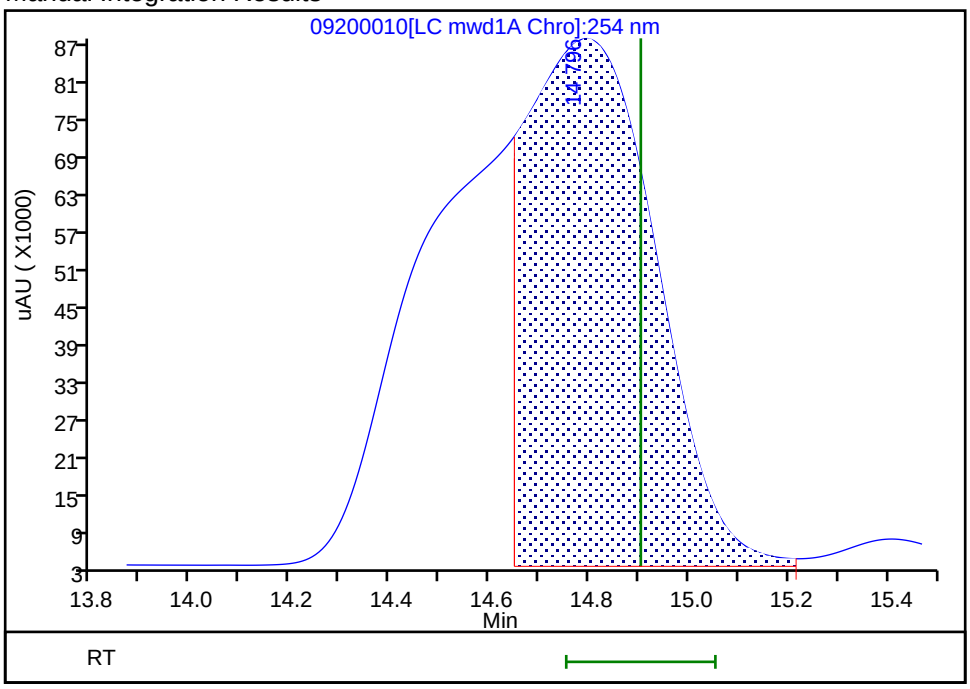
Processing Integration Results

RT: 14.80
Area: 2480748
Amount: 3.945301
Amount Units: ug/ml



Manual Integration Results

RT: 14.80
Area: 1505678
Amount: 2.571834
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:27 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

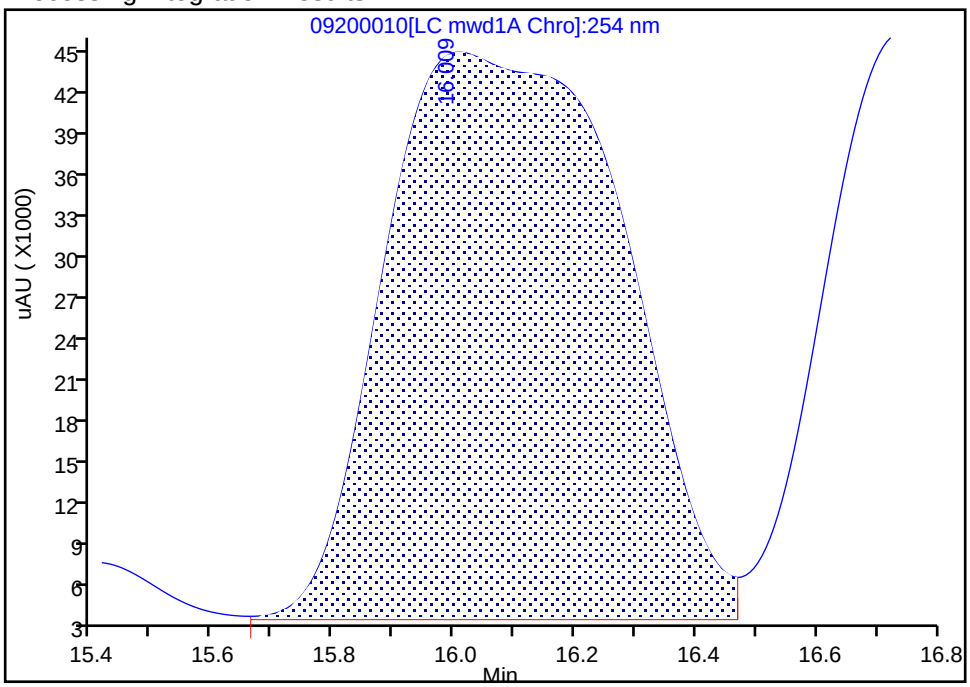
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D				
Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

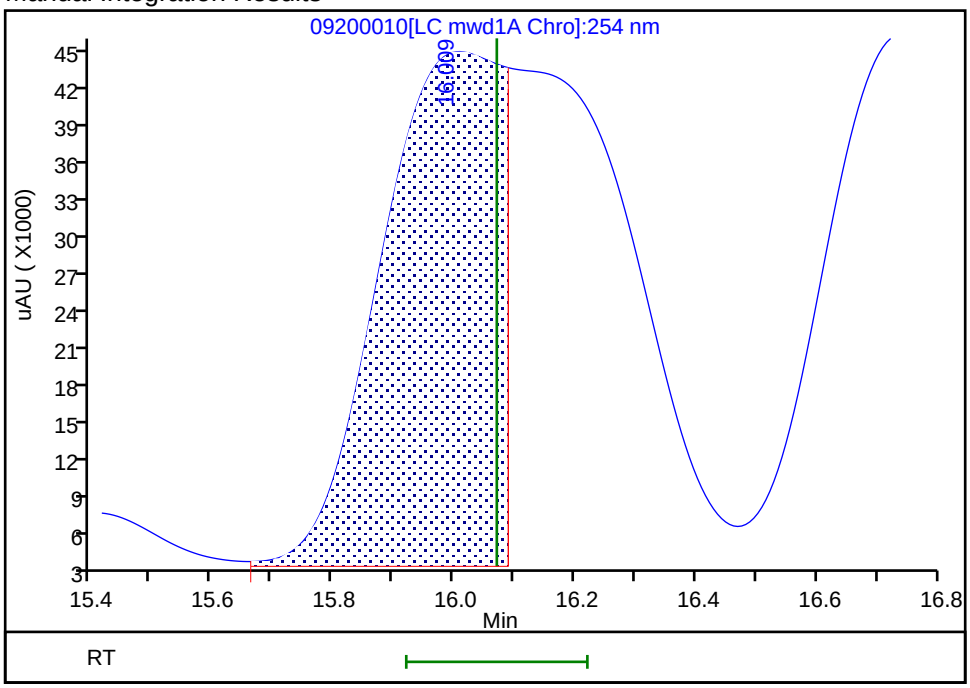
Processing Integration Results

RT: 16.01
Area: 1122493
Amount: 3.972434
Amount Units: ug/ml



Manual Integration Results

RT: 16.01
Area: 558563
Amount: 2.350895
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:37 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

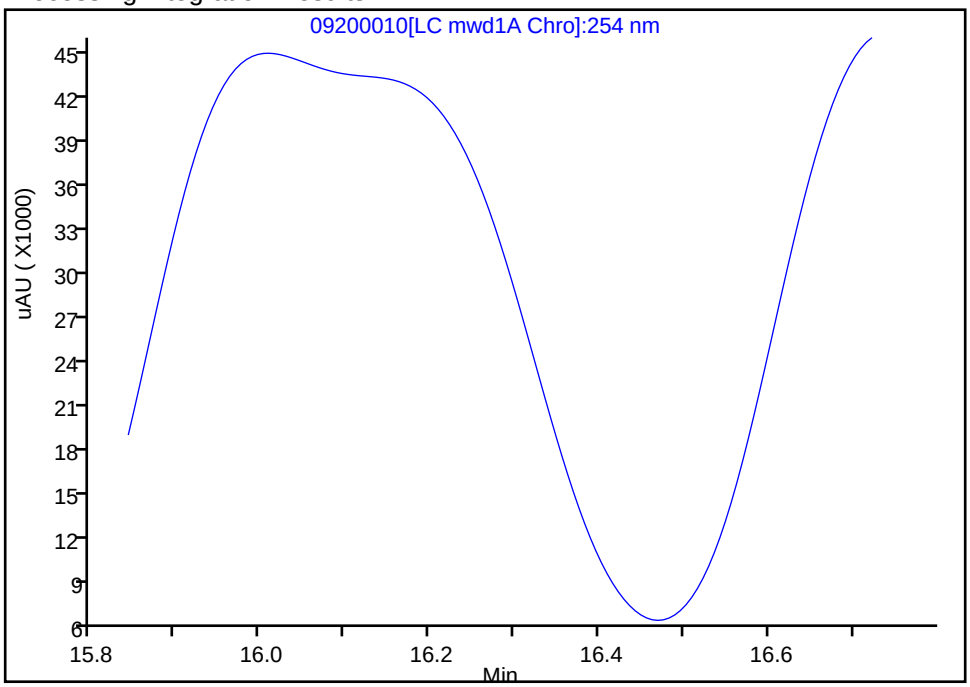
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D				
Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

16 p-Nitrotoluene, CAS: 99-99-0

Signal: 1

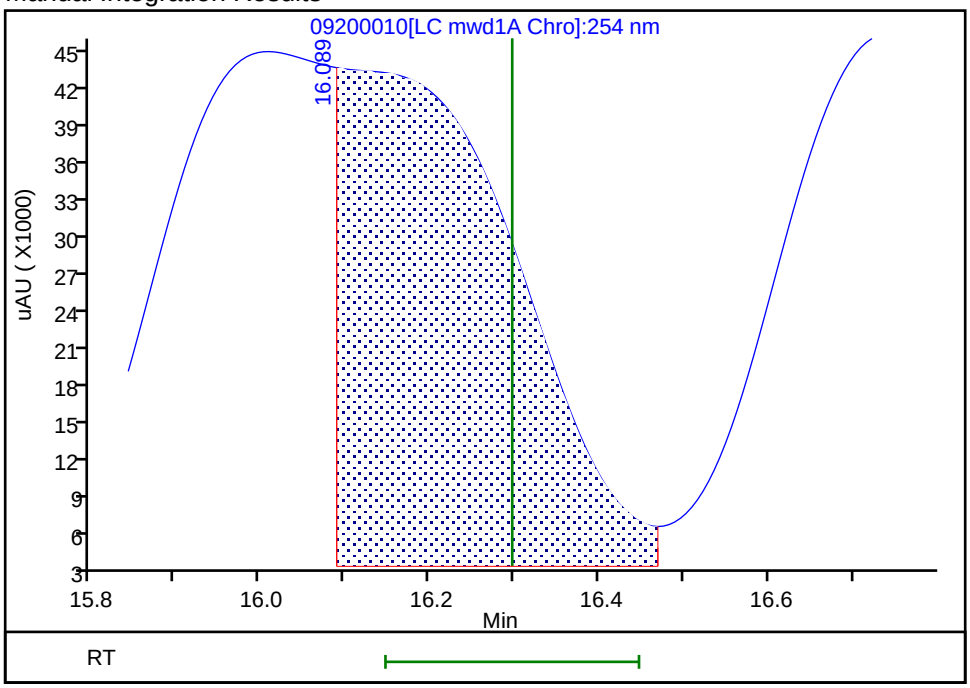
Not Detected
Expected RT: 16.30

Processing Integration Results



Manual Integration Results

RT: 16.09
Area: 563952
Amount: 2.638534
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:39 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

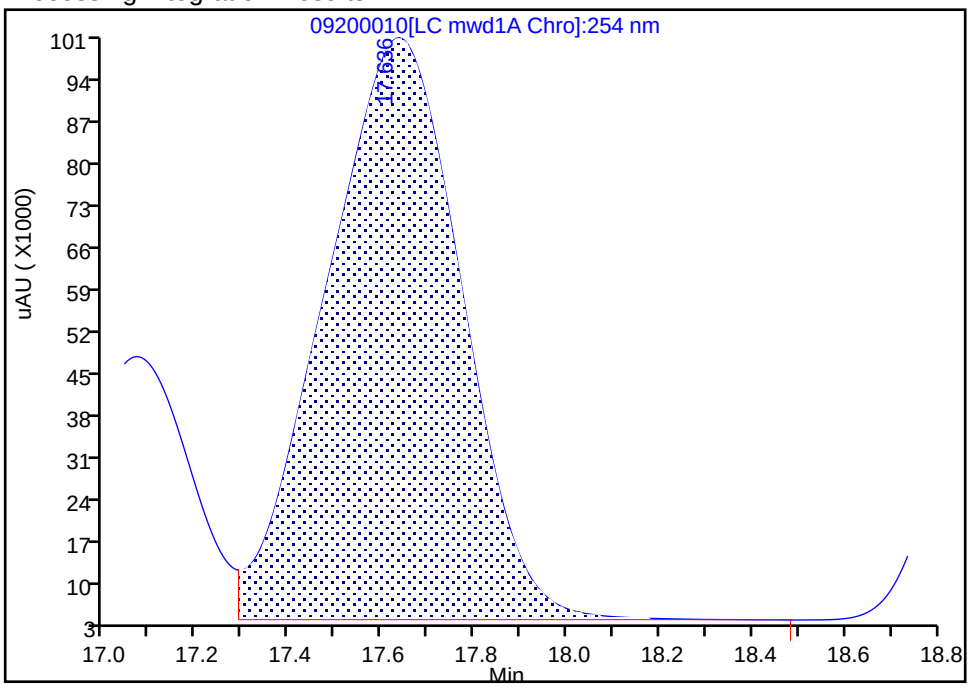
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D				
Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

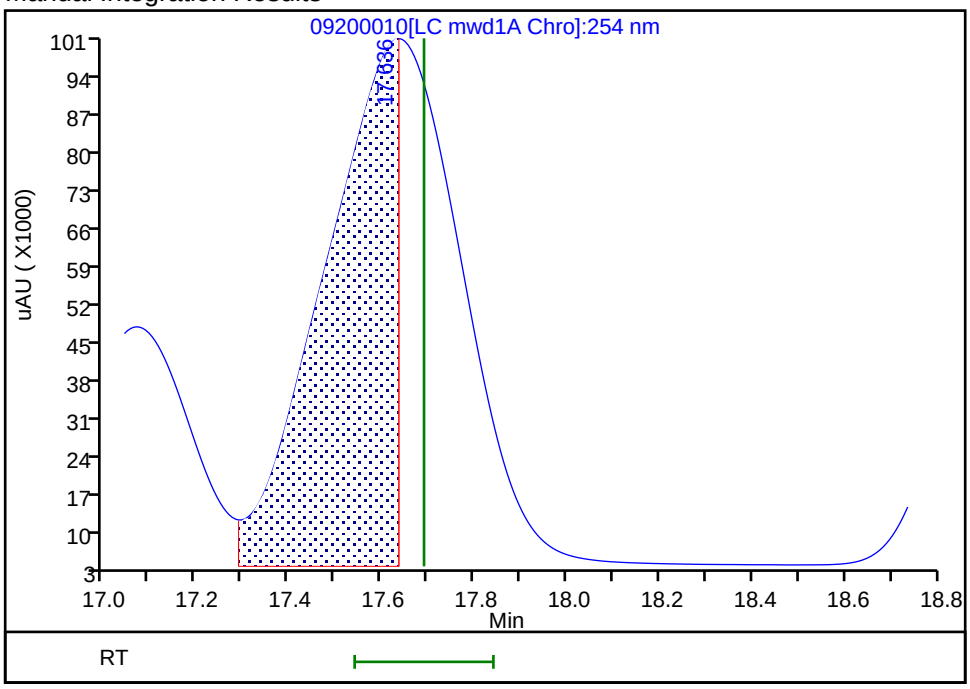
Processing Integration Results

RT: 17.64
Area: 1977654
Amount: 2.500000
Amount Units: ug/ml



Manual Integration Results

RT: 17.64
Area: 1049994
Amount: 2.679774
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:44 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

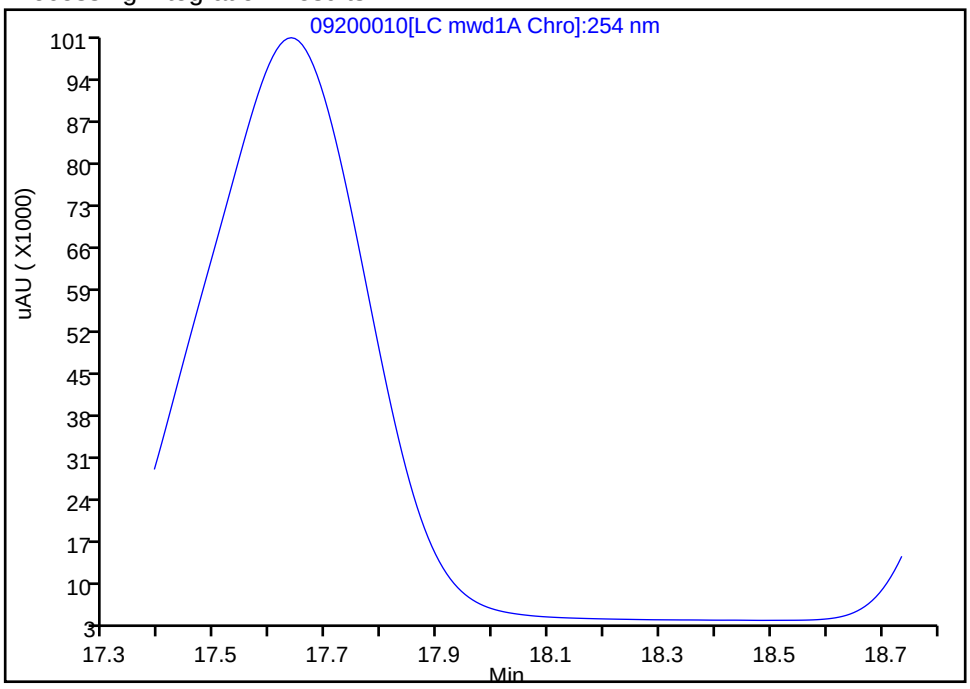
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200010.D				
Injection Date:	20-Sep-2023 20:01:08	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 9				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

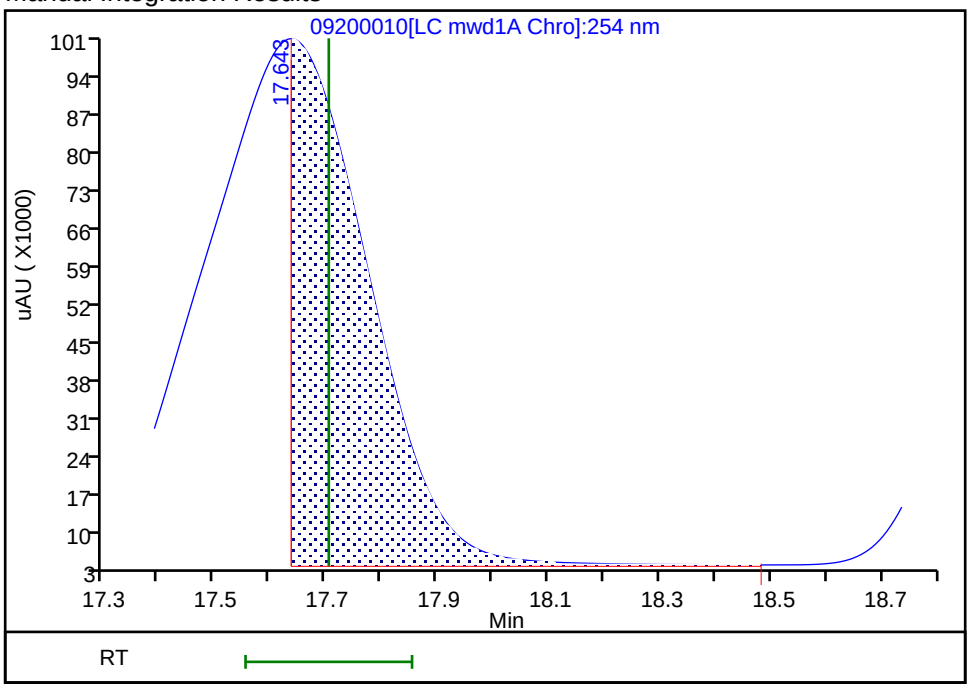
Not Detected
Expected RT: 17.70

Processing Integration Results



Manual Integration Results

RT: 17.64
Area: 927688
Amount: 2.326308
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:46 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200011.D
Lims ID: IC INT 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 20-Sep-2023 20:36:05 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 8
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:13 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:53:03

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.293	5.324	-0.031	385874	1.00	0.9822	
4 DNX	1	6.179	6.211	-0.032	284614	1.00	0.9867	
5 HMX	1	6.859	6.877	-0.018	175985	1.00	0.9257	
6 MNX	1	7.726	7.751	-0.025	301963	1.17	1.14	
7 2,4,6-Trinitrophenol	1	8.439	8.551	-0.112	145890	1.00	0.9651	a
8 RDX	1	9.159	9.184	-0.025	203760	1.00	0.9241	
9 Nitrobenzene	1	11.766	11.790	-0.024	373244	1.00	0.9720	
$ 10 1,2-Dinitrobenzene	1	12.766	12.784	-0.018	255258	1.00	0.9569	
11 3,5-Dinitroaniline	1	14.619	14.644	-0.025	418073	1.00	1.01	
12 1,3-Dinitrobenzene	1	14.886	14.904	-0.018	582877	1.00	1.00	
13 Nitroglycerin	2	15.473	15.484	-0.011	1256262	10.0	9.78	
14 o-Nitrotoluene	1	16.053	16.070	-0.017	235634	1.00	0.99	
16 p-Nitrotoluene	1	16.279	16.297	-0.018	214152	1.00	1.00	
17 4-Amino-2,6-dinitrotoluene	1	16.806	16.830	-0.024	269511	1.00	0.99	
18 m-Nitrotoluene	1	17.139	17.164	-0.025	271734	1.00	1.00	
19 2-Amino-4,6-dinitrotoluene	1	17.666	17.690	-0.024	366541	1.00	0.9355	Ma
20 1,3,5-Trinitrobenzene	1	17.679	17.704	-0.025	427317	1.00	1.07	M
21 2,6-Dinitrotoluene	1	18.966	18.990	-0.024	267331	1.00	0.9747	
22 2,4-Dinitrotoluene	1	19.419	19.444	-0.025	544526	1.00	1.00	
23 Tetryl	1	22.819	22.837	-0.018	305669	1.00	0.99	
24 2,4,6-Trinitrotoluene	1	23.633	23.657	-0.024	398106	1.00	1.01	
25 PETN	2	24.939	24.957	-0.018	1327029	10.0	9.99	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added: 100.00	Units: uL
8330 DMT_00015	Amount Added: 50.00	Units: uL

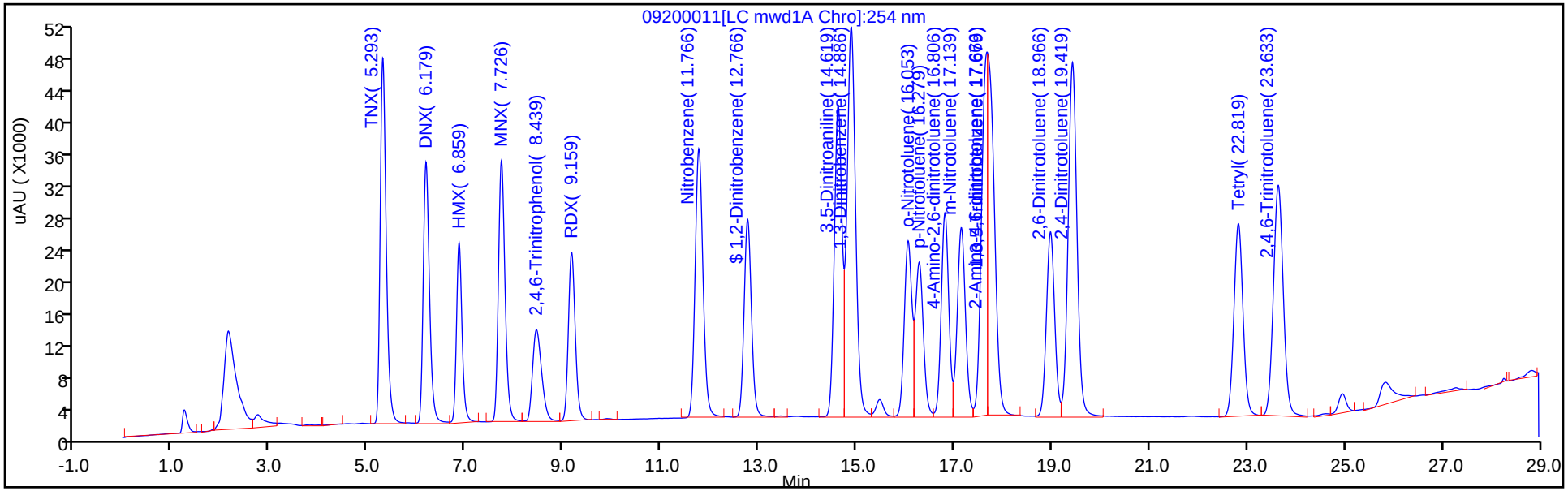
Report Date: 21-Sep-2023 16:09:13 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

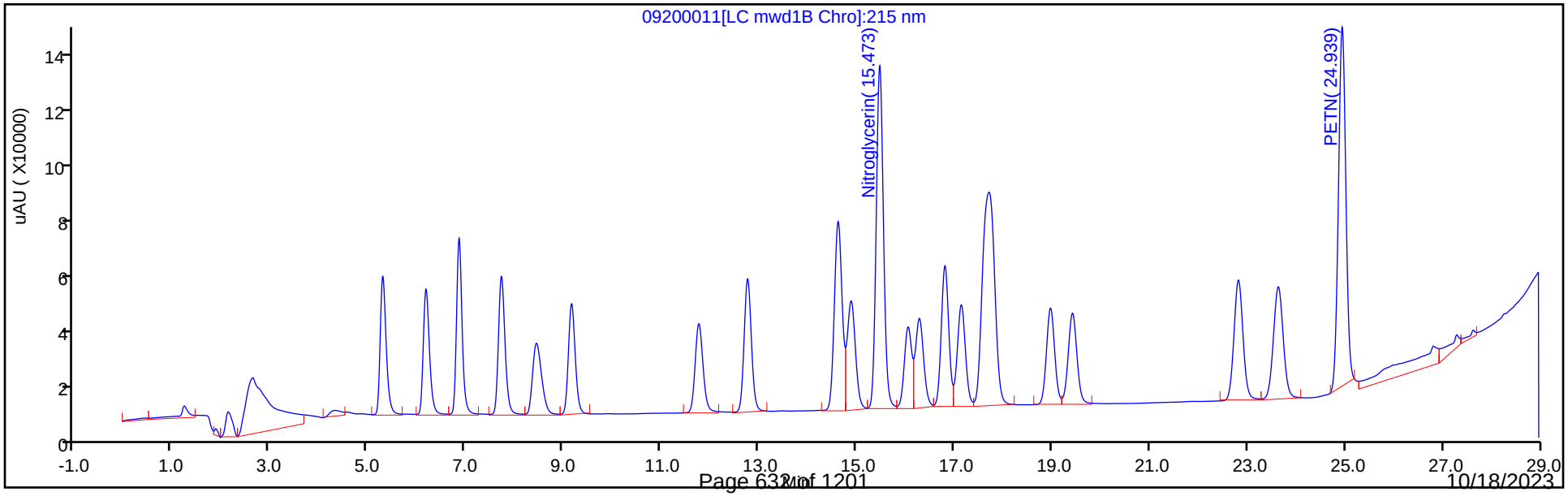
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200011.D

Injection Date:	20-Sep-2023 20:36:05	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 8			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023 8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

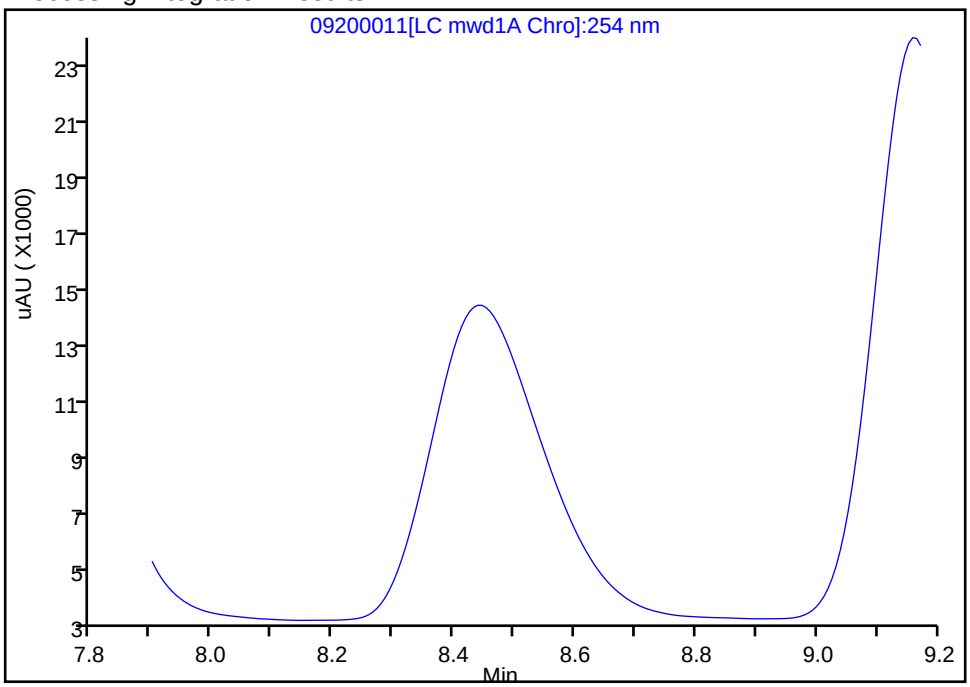
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200011.D				
Injection Date:	20-Sep-2023 20:36:05	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

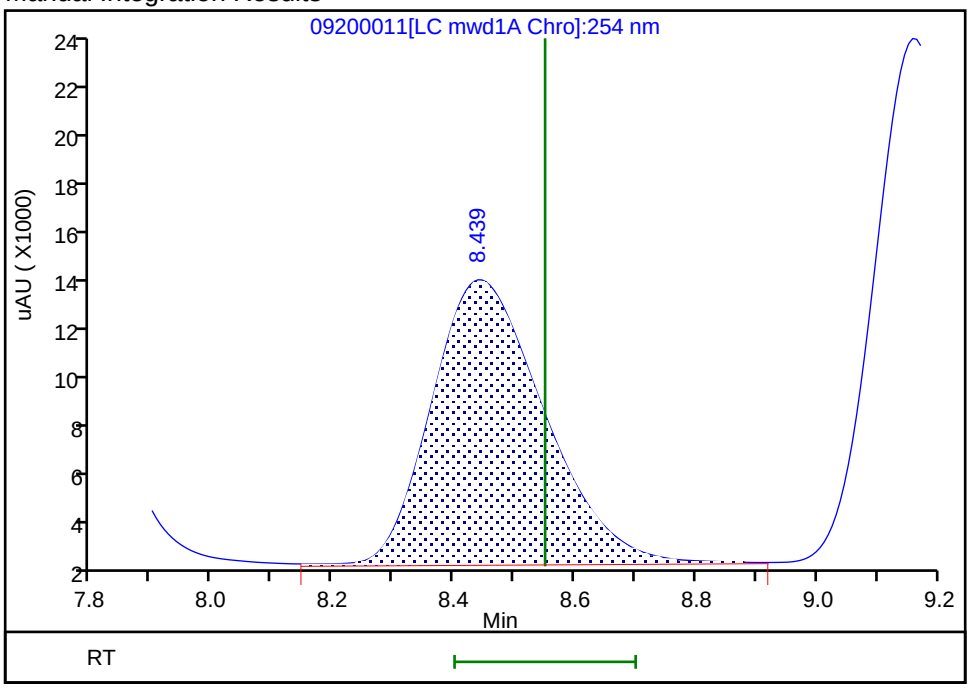
Processing Integration Results

Not Detected
Expected RT: 8.55



Manual Integration Results

RT: 8.44
Area: 145890
Amount: 0.965087
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:01 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

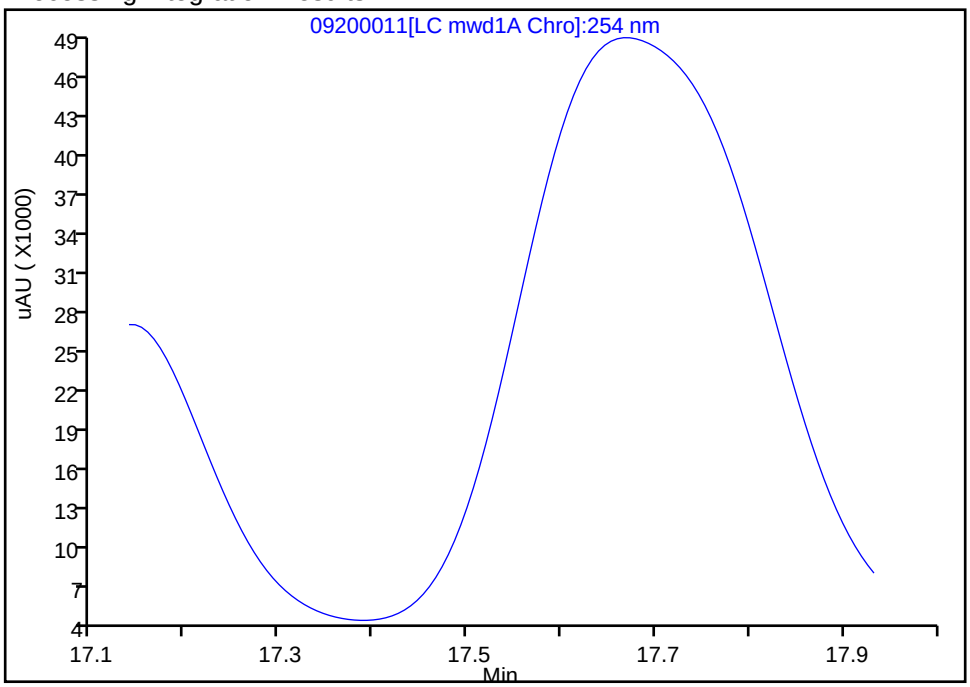
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200011.D				
Injection Date:	20-Sep-2023 20:36:05	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

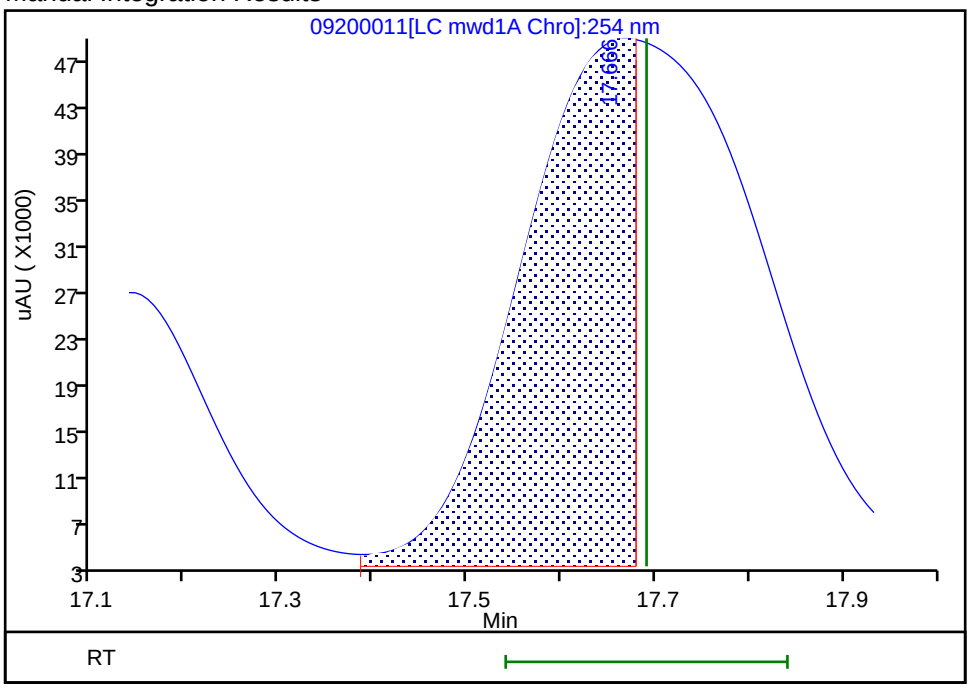
Not Detected
Expected RT: 17.69

Processing Integration Results



Manual Integration Results

RT: 17.67
Area: 366541
Amount: 0.935479
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:59 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

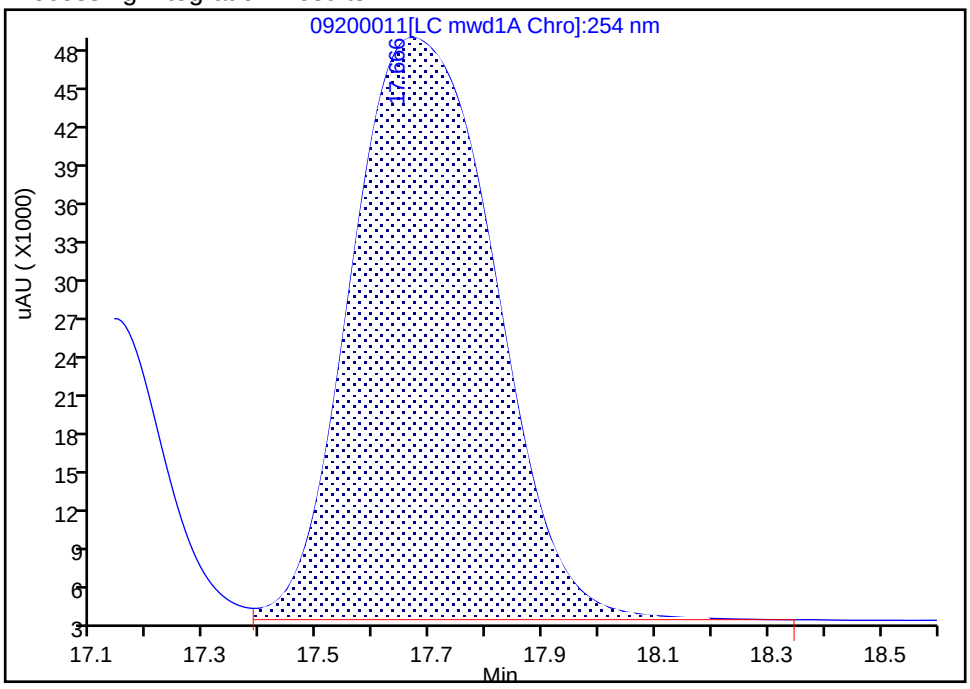
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200011.D				
Injection Date:	20-Sep-2023 20:36:05	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

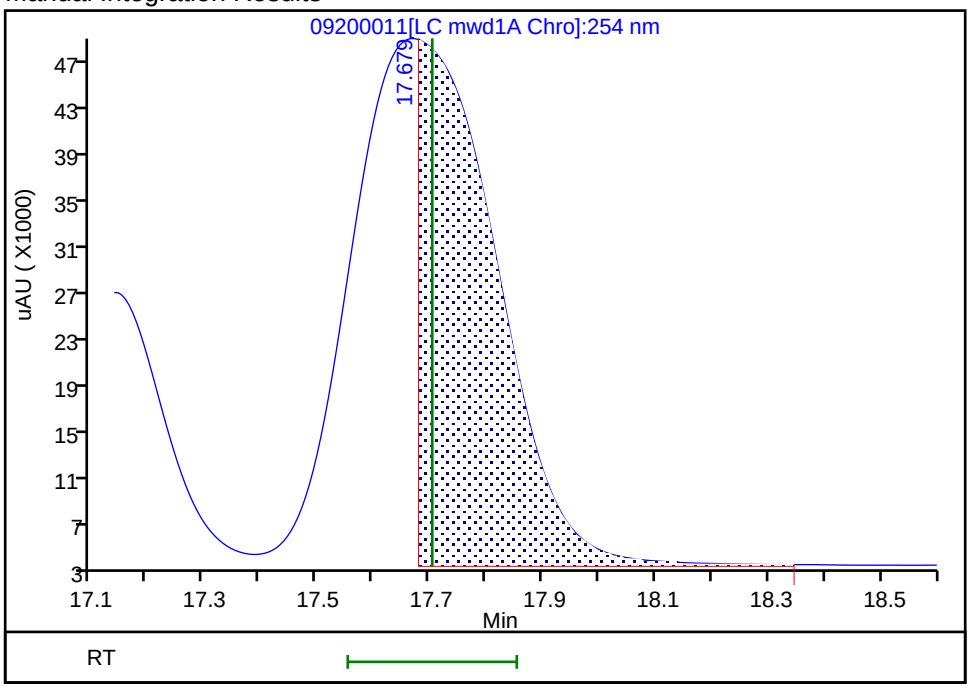
Processing Integration Results

RT: 17.67
Area: 793830
Amount: 1.067154
Amount Units: ug/ml



Manual Integration Results

RT: 17.68
Area: 427317
Amount: 1.071557
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:52:57 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

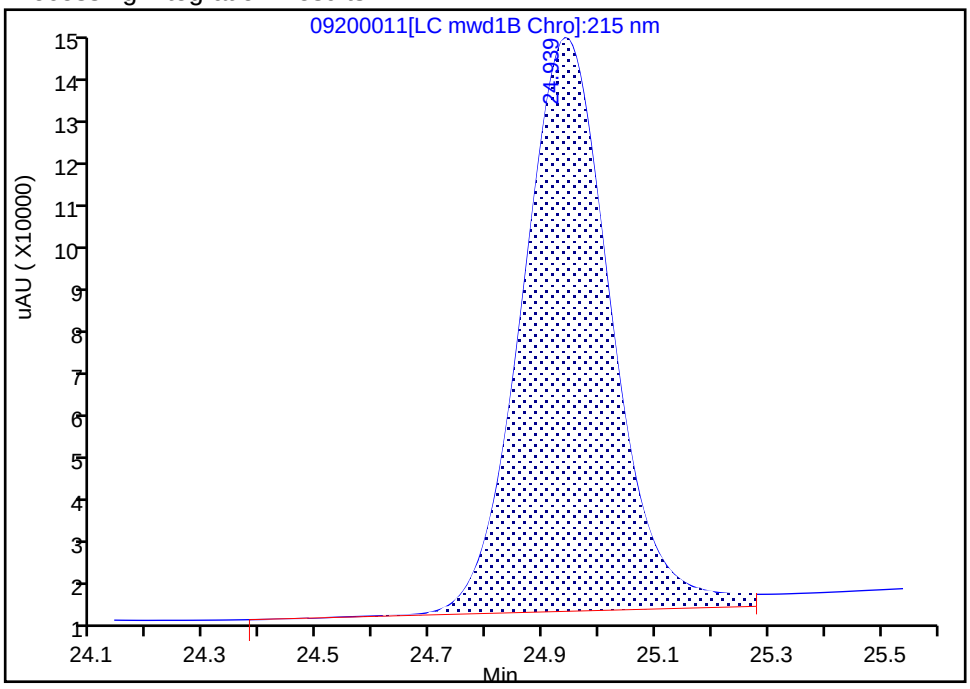
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200011.D				
Injection Date:	20-Sep-2023 20:36:05	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 8				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

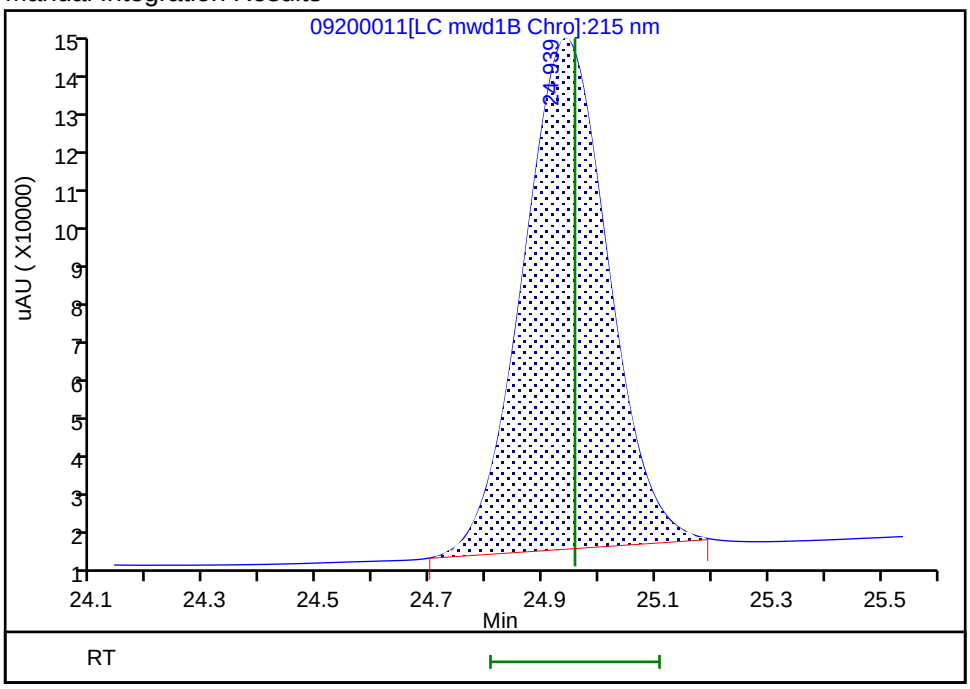
Processing Integration Results

RT: 24.94
Area: 1406045
Amount: 10.937316
Amount Units: ug/ml



Manual Integration Results

RT: 24.94
Area: 1327029
Amount: 9.986883
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:40 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D
Lims ID: IC INT 7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 20-Sep-2023 21:11:00 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 7
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:13 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:53:14

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.310	5.324	-0.014	271820	0.7021	0.6919	
4 DNX	1	6.190	6.211	-0.021	199913	0.7007	0.6931	
5 HMX	1	6.863	6.877	-0.014	123224	0.7000	0.6482	
6 MNX	1	7.736	7.751	-0.015	212494	0.8169	0.8017	
7 2,4,6-Trinitrophenol	1	8.483	8.551	-0.068	101968	0.7000	0.6750	a
8 RDX	1	9.170	9.184	-0.014	142502	0.7000	0.6463	
9 Nitrobenzene	1	11.783	11.790	-0.007	260838	0.7000	0.6793	
$ 10 1,2-Dinitrobenzene	1	12.776	12.784	-0.008	178112	0.7000	0.6677	
11 3,5-Dinitroaniline	1	14.623	14.644	-0.021	292419	0.7000	0.7063	
12 1,3-Dinitrobenzene	1	14.889	14.904	-0.015	407008	0.7000	0.6952	
13 Nitroglycerin	2	15.469	15.484	-0.015	884192	7.00	6.88	
14 o-Nitrotoluene	1	16.056	16.070	-0.014	164622	0.7000	0.6929	
16 p-Nitrotoluene	1	16.289	16.297	-0.008	151013	0.7000	0.7065	
17 4-Amino-2,6-dinitrotoluene	1	16.816	16.830	-0.014	188866	0.7000	0.6943	
18 m-Nitrotoluene	1	17.149	17.164	-0.015	190110	0.7000	0.7026	
19 2-Amino-4,6-dinitrotoluene	1	17.669	17.690	-0.021	289331	0.7000	0.7384	Ma
20 1,3,5-Trinitrobenzene	1	17.703	17.704	-0.001	265296	0.7000	0.6653	M
21 2,6-Dinitrotoluene	1	18.976	18.990	-0.014	186470	0.7000	0.6799	
22 2,4-Dinitrotoluene	1	19.423	19.444	-0.021	379865	0.7000	0.6979	
23 Tetryl	1	22.830	22.837	-0.007	212907	0.7000	0.6913	
24 2,4,6-Trinitrotoluene	1	23.650	23.657	-0.007	277305	0.7000	0.7022	
25 PETN	2	24.956	24.957	-0.001	928111	7.00	6.99	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added:	70.00	Units: uL
8330 DMT_00015	Amount Added:	35.00	Units: uL

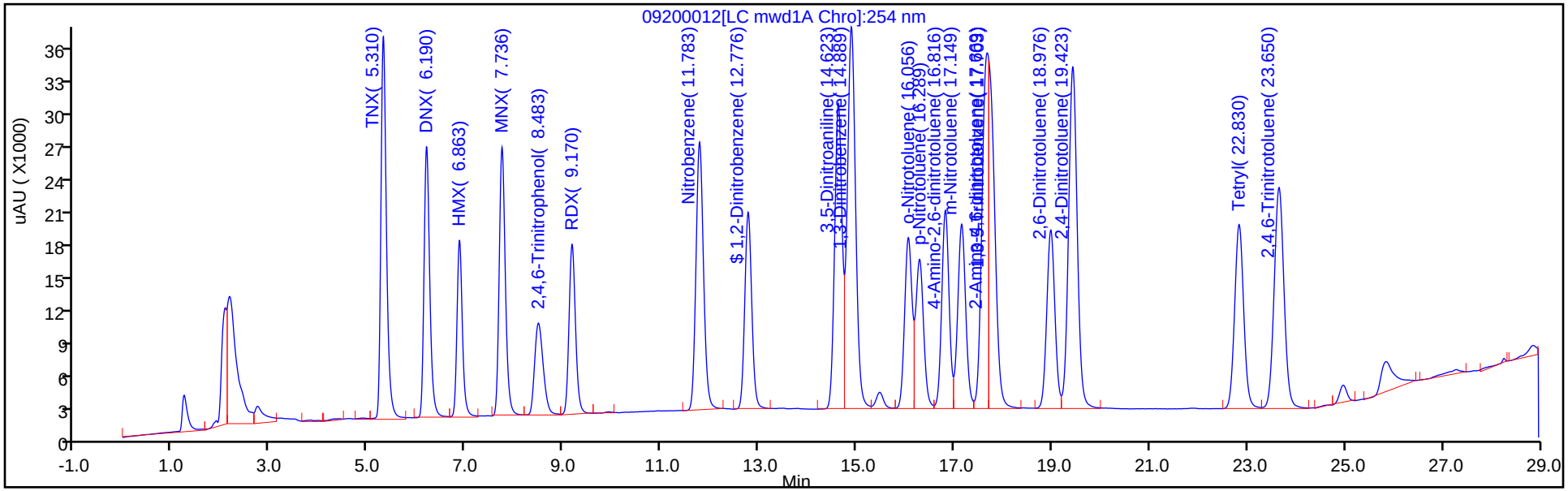
Report Date: 21-Sep-2023 16:09:13 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

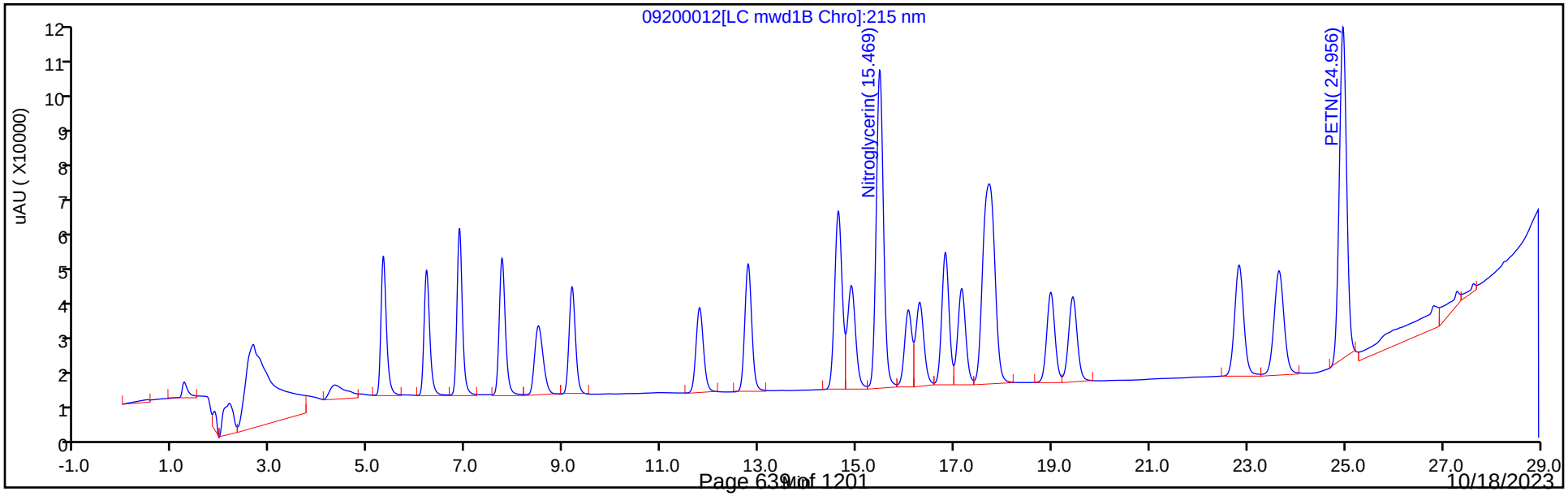
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D

Injection Date:	20-Sep-2023 21:11:00	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 7			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023 8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

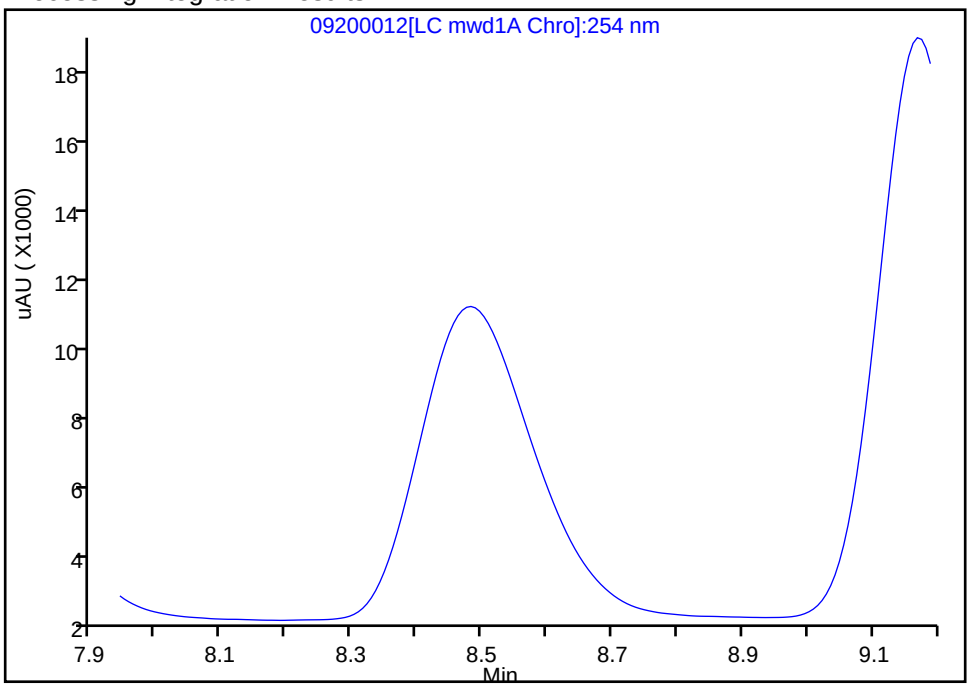
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D				
Injection Date:	20-Sep-2023 21:11:00	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

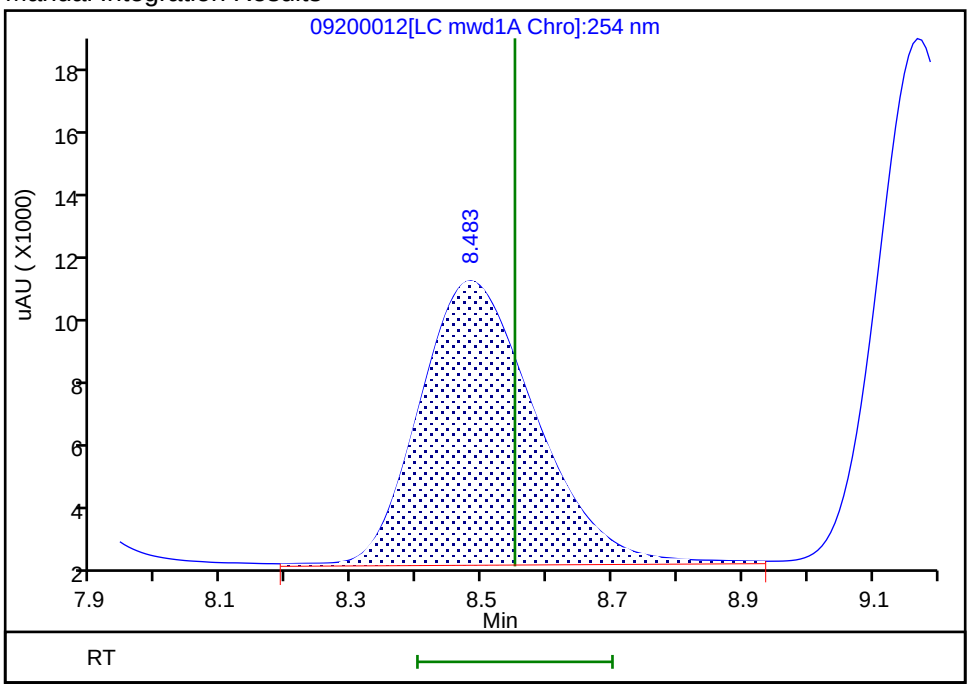
Not Detected
Expected RT: 8.55

Processing Integration Results



Manual Integration Results

RT: 8.48
Area: 101968
Amount: 0.674961
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:05 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

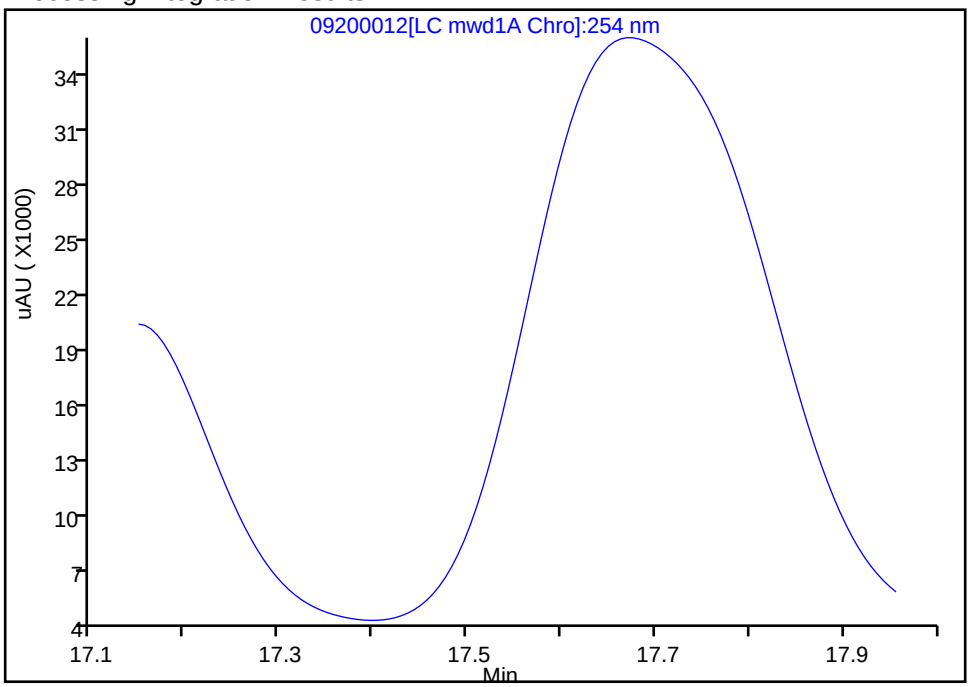
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D				
Injection Date:	20-Sep-2023 21:11:00	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

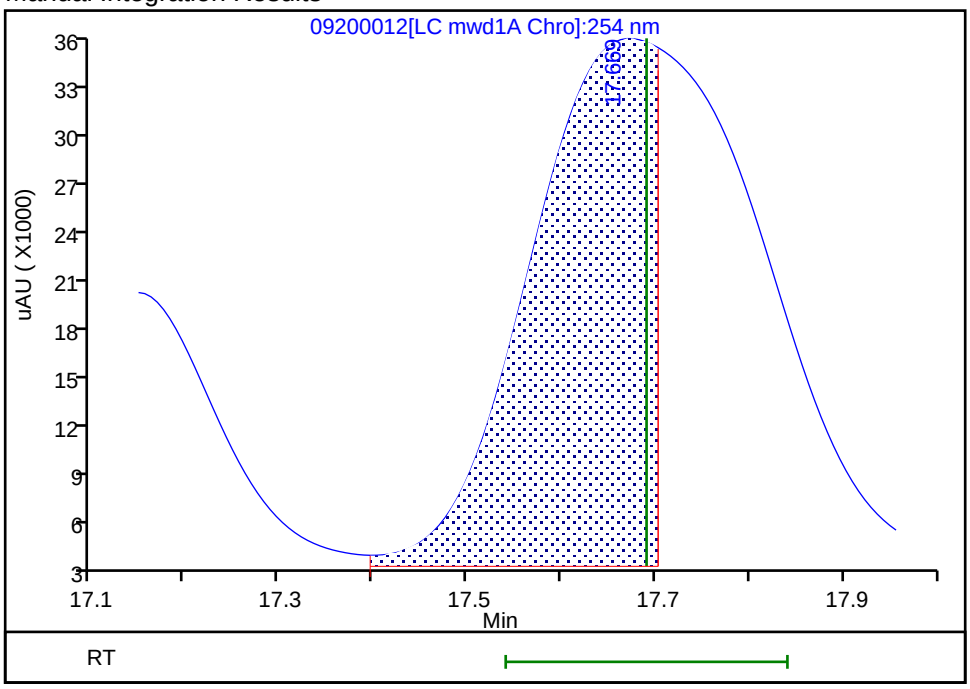
Not Detected
Expected RT: 17.69

Processing Integration Results



Manual Integration Results

RT: 17.67
Area: 289331
Amount: 0.738425
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:12 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

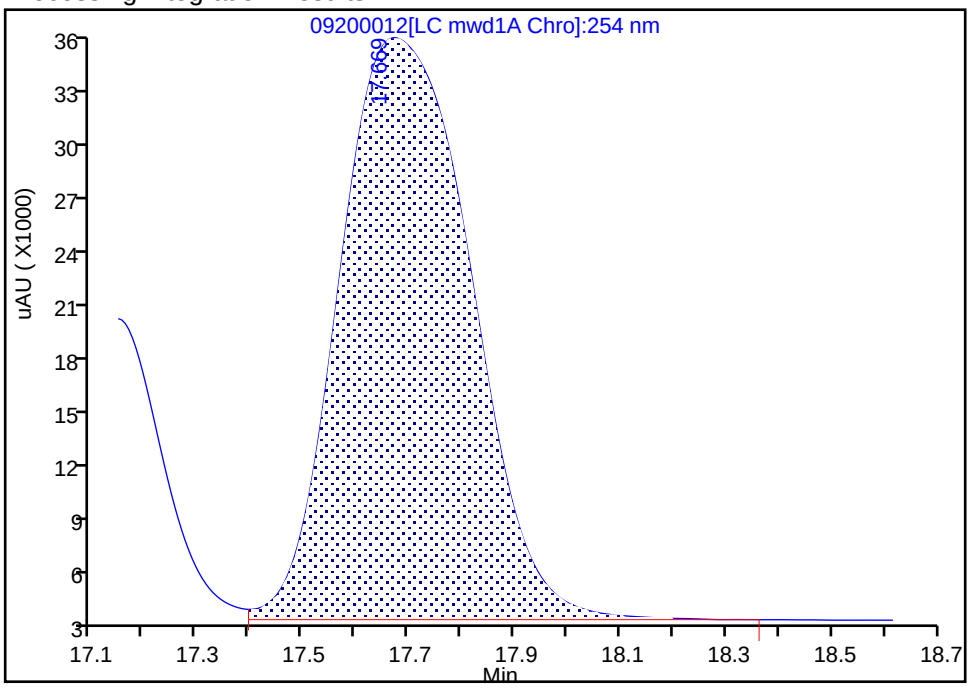
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D				
Injection Date:	20-Sep-2023 21:11:00	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

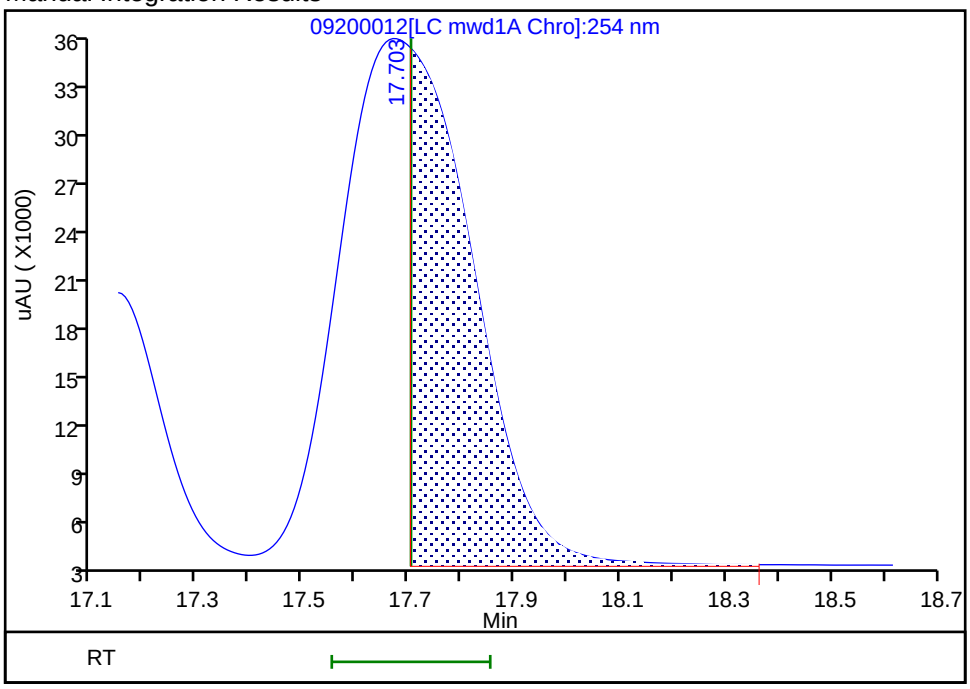
Processing Integration Results

RT: 17.67
Area: 554614
Amount: 0.788754
Amount Units: ug/ml



Manual Integration Results

RT: 17.70
Area: 265296
Amount: 0.665267
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:09 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

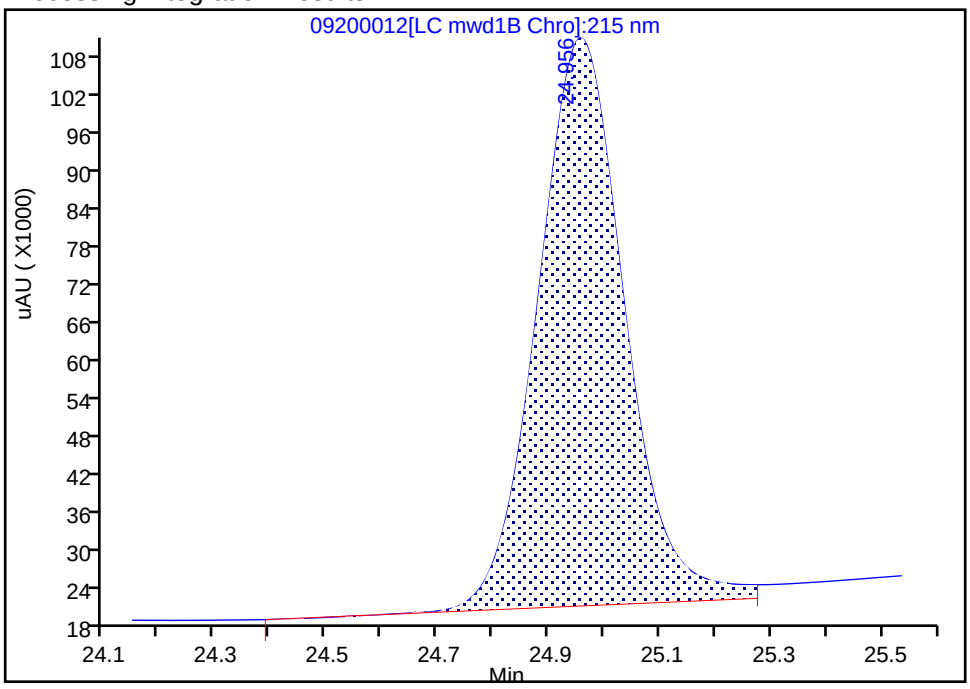
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200012.D				
Injection Date:	20-Sep-2023 21:11:00	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 7				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	12	Worklist Smp#:	12
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

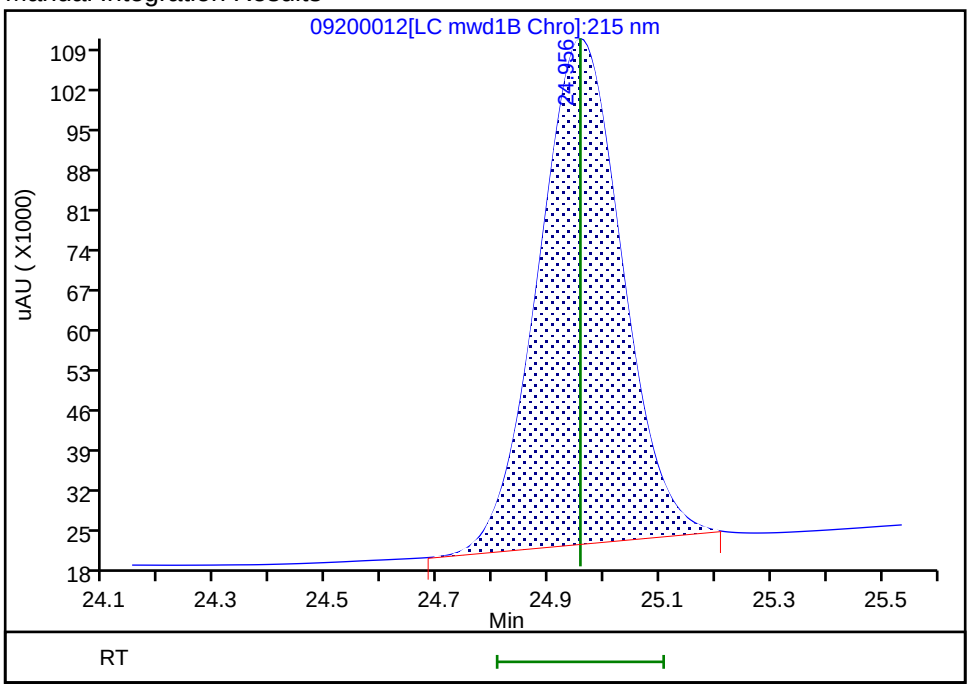
Processing Integration Results

RT: 24.96
Area: 987884
Amount: 7.628235
Amount Units: ug/ml



Manual Integration Results

RT: 24.96
Area: 928111
Amount: 6.990588
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:36 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200013.D
Lims ID: IC INT 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 20-Sep-2023 21:45:55 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:14 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:53:26

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.315	5.324	-0.009	152083	0.4012	0.3871	
4 DNX	1	6.201	6.211	-0.010	112495	0.4004	0.3900	
5 HMX	1	6.875	6.877	-0.002	71753	0.4000	0.3774	
6 MNX	1	7.748	7.751	-0.003	119982	0.4668	0.4527	
7 2,4,6-Trinitrophenol	1	8.528	8.551	-0.023	58834	0.4000	0.3900	a
8 RDX	1	9.188	9.184	0.004	82497	0.4000	0.3742	
9 Nitrobenzene	1	11.788	11.790	-0.002	152954	0.4000	0.3983	
$ 10 1,2-Dinitrobenzene	1	12.781	12.784	-0.003	102725	0.4000	0.3851	
11 3,5-Dinitroaniline	1	14.634	14.644	-0.010	167829	0.4000	0.4053	
12 1,3-Dinitrobenzene	1	14.901	14.904	-0.003	231911	0.4000	0.3961	
13 Nitroglycerin	2	15.481	15.484	-0.003	502697	4.00	3.91	
14 o-Nitrotoluene	1	16.061	16.070	-0.009	93612	0.4000	0.3940	
16 p-Nitrotoluene	1	16.294	16.297	-0.003	86004	0.4000	0.4024	
17 4-Amino-2,6-dinitrotoluene	1	16.814	16.830	-0.016	107186	0.4000	0.3940	
18 m-Nitrotoluene	1	17.148	17.164	-0.016	107991	0.4000	0.3991	
19 2-Amino-4,6-dinitrotoluene	1	17.674	17.690	-0.016	162249	0.4000	0.4141	Ma
20 1,3,5-Trinitrobenzene	1	17.701	17.704	-0.003	153278	0.4000	0.3844	M
21 2,6-Dinitrotoluene	1	18.974	18.990	-0.016	106943	0.4000	0.3899	
22 2,4-Dinitrotoluene	1	19.428	19.444	-0.016	217437	0.4000	0.3995	
23 Tetryl	1	22.828	22.837	-0.009	122409	0.4000	0.3975	
24 2,4,6-Trinitrotoluene	1	23.641	23.657	-0.016	159128	0.4000	0.4029	
25 PETN	2	24.955	24.957	-0.002	529728	4.00	4.00	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added:	40.00	Units: uL
8330 DMT_00015	Amount Added:	20.00	Units: uL

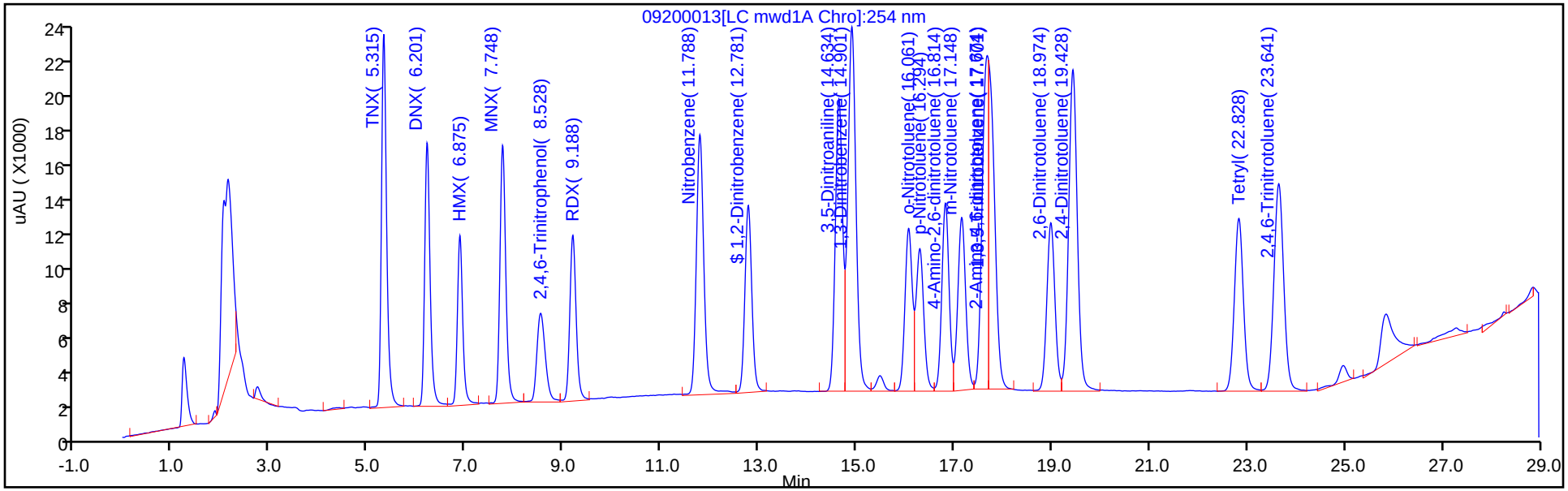
Report Date: 21-Sep-2023 16:09:14 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

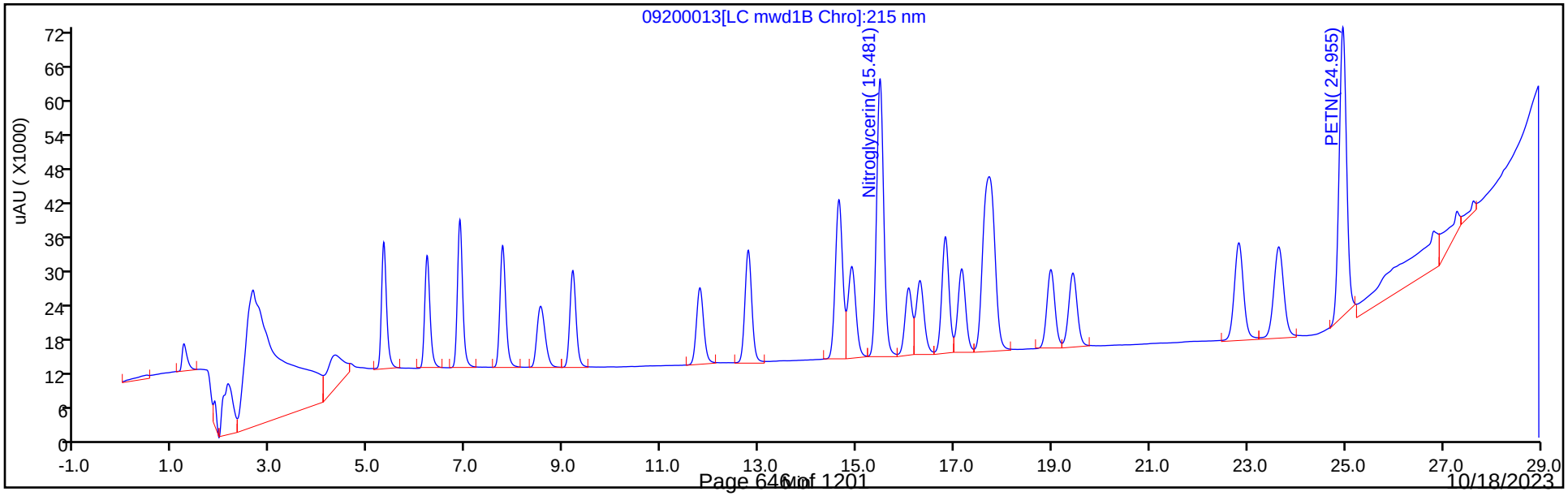
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200013.D

Injection Date:	20-Sep-2023 21:45:55	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 6			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023 8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

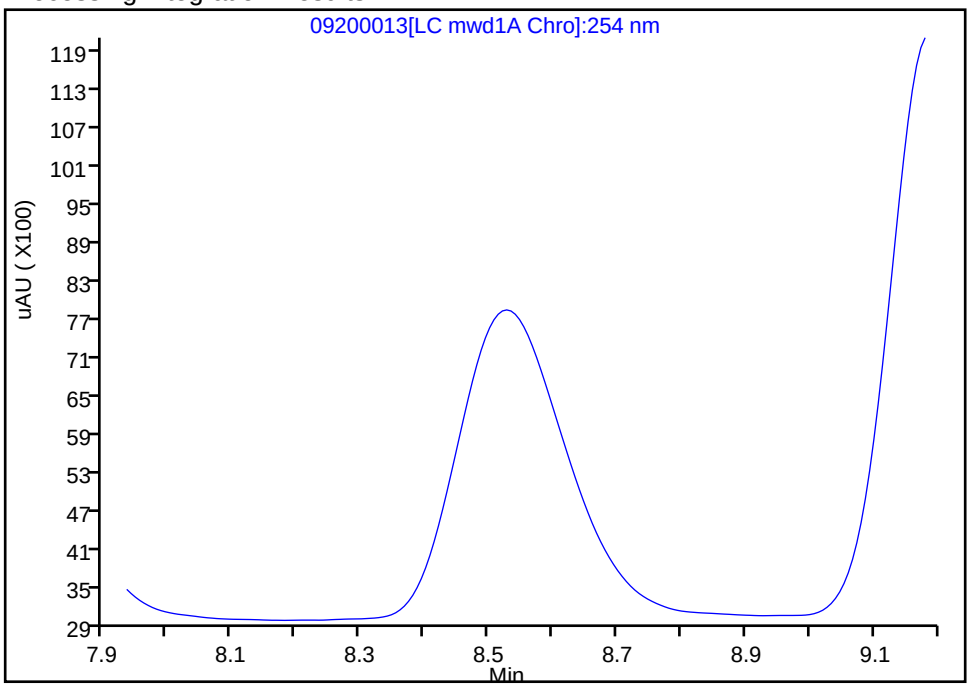
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200013.D				
Injection Date:	20-Sep-2023 21:45:55	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

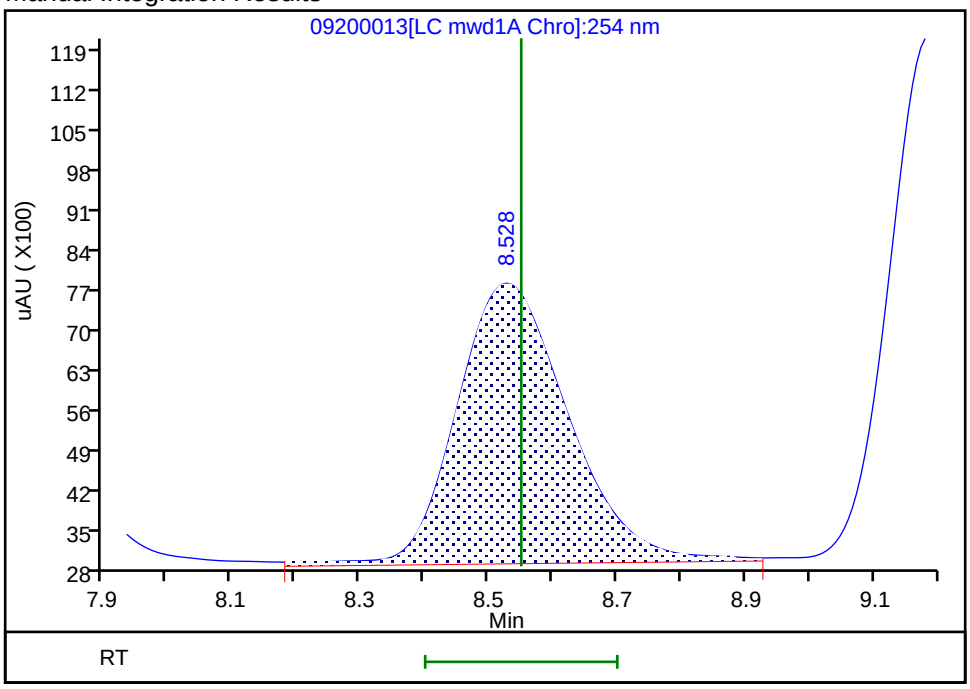
Not Detected
Expected RT: 8.55

Processing Integration Results



Manual Integration Results

RT: 8.53
Area: 58834
Amount: 0.390040
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:17 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

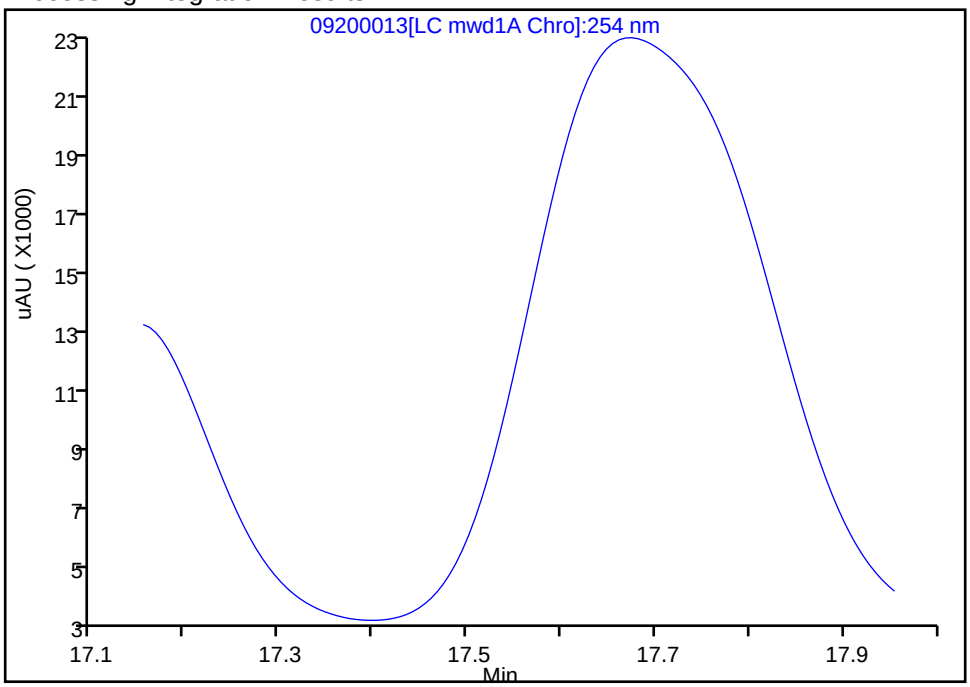
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200013.D				
Injection Date:	20-Sep-2023 21:45:55	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

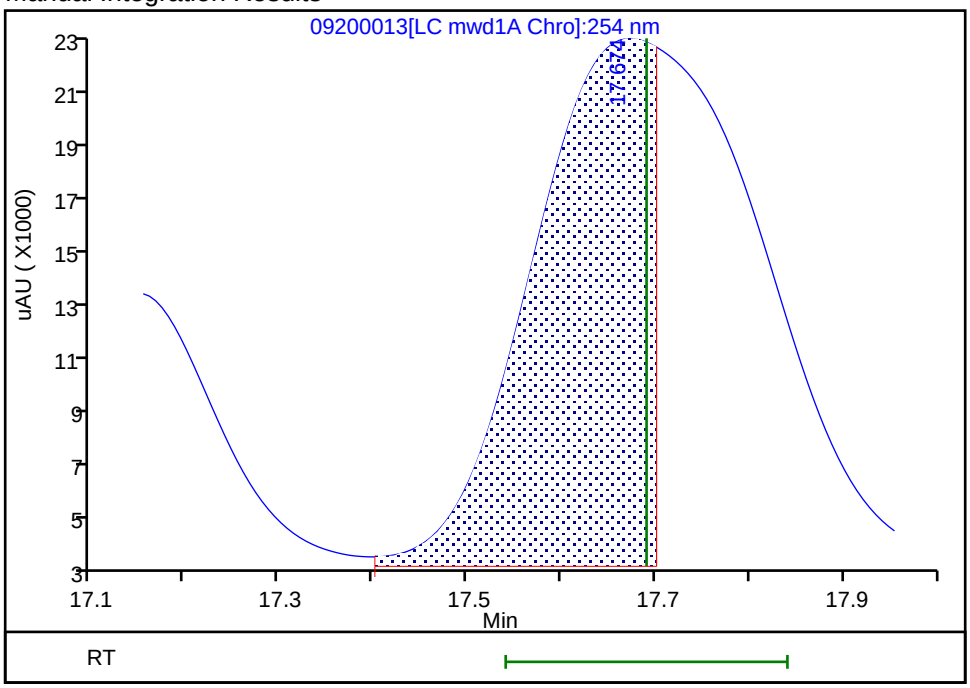
Not Detected
Expected RT: 17.69

Processing Integration Results



Manual Integration Results

RT: 17.67
Area: 162249
Amount: 0.414089
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:23 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

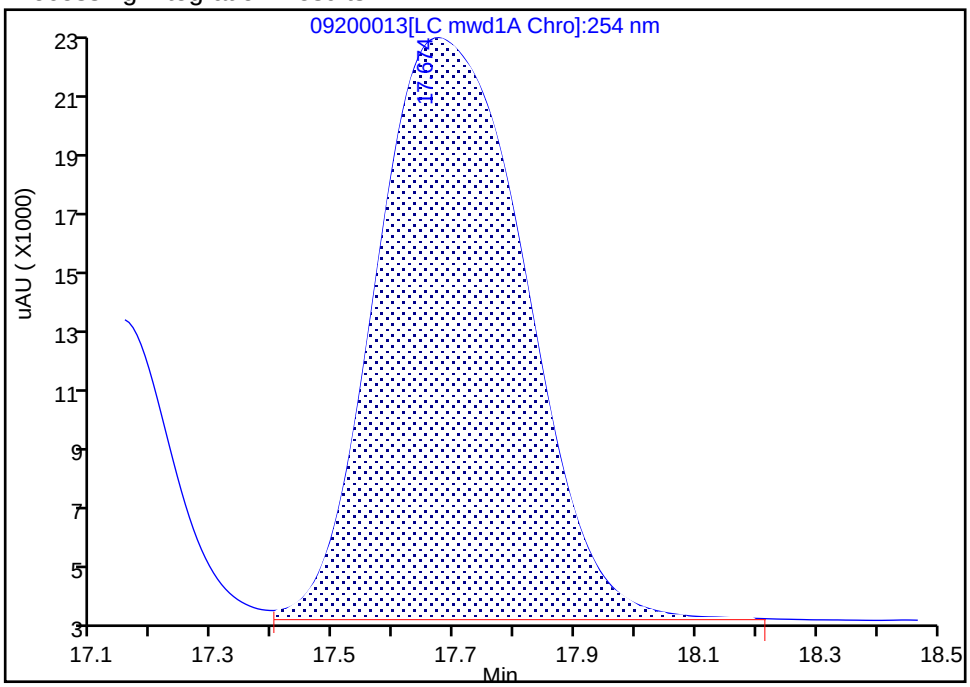
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200013.D				
Injection Date:	20-Sep-2023 21:45:55	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

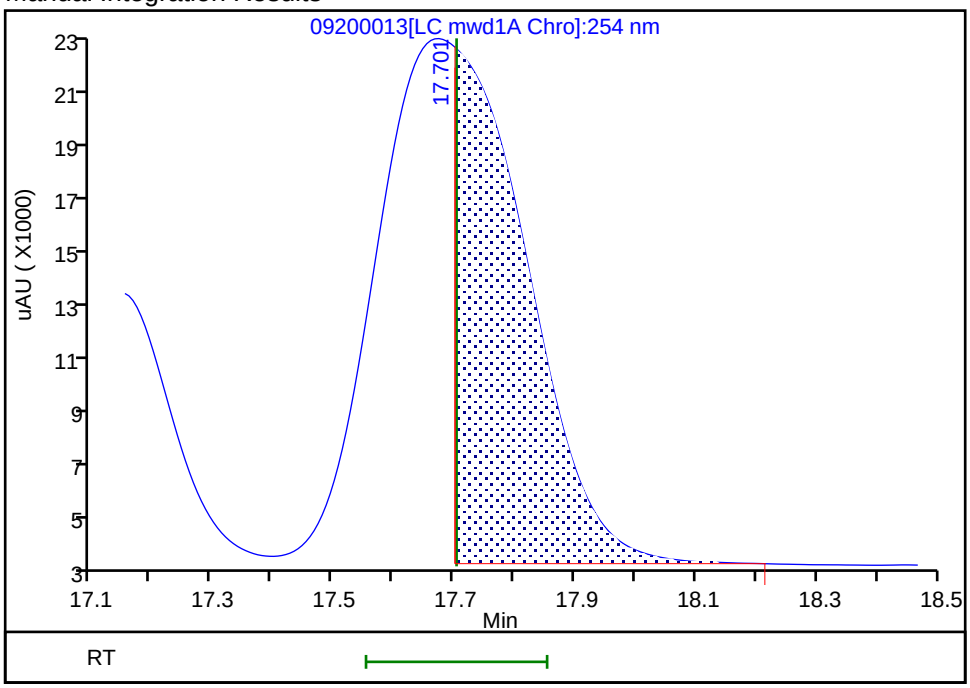
Processing Integration Results

RT: 17.67
Area: 315526
Amount: 0.480086
Amount Units: ug/ml



Manual Integration Results

RT: 17.70
Area: 153278
Amount: 0.384366
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:21 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

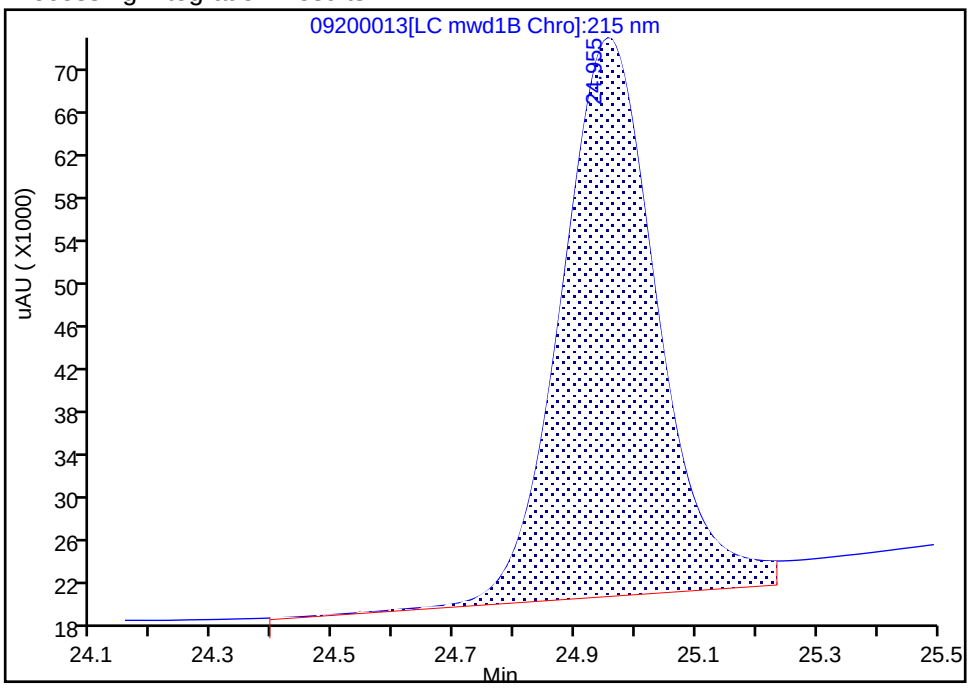
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200013.D				
Injection Date:	20-Sep-2023 21:45:55	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 6				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

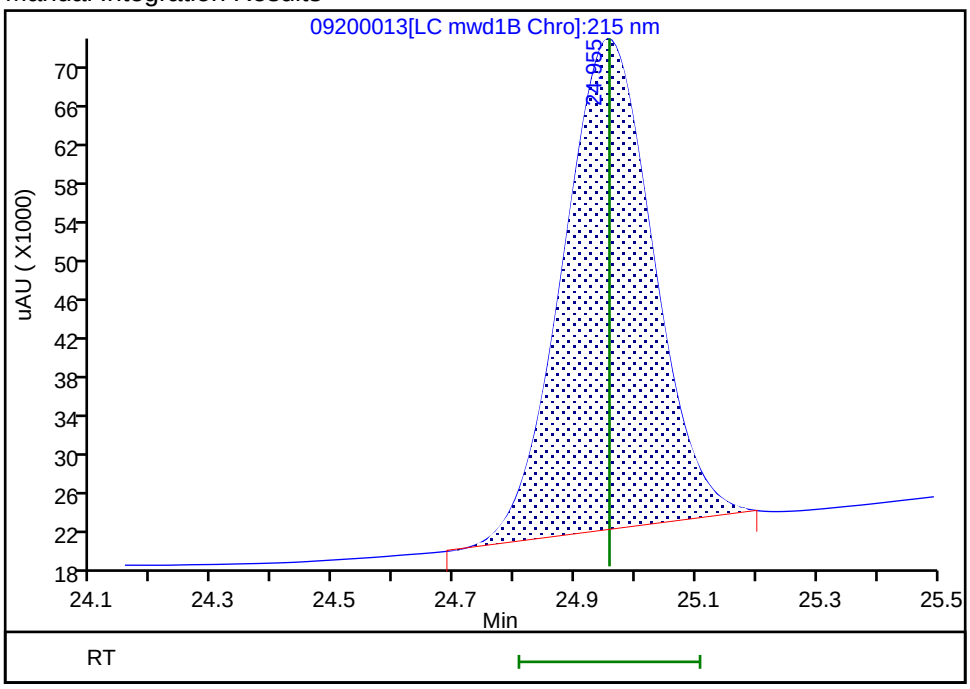
Processing Integration Results

RT: 24.95
Area: 578130
Amount: 4.418329
Amount Units: ug/ml



Manual Integration Results

RT: 24.95
Area: 529728
Amount: 3.998312
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:32 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200014.D
Lims ID: IC INT 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 20-Sep-2023 22:20:51 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:15 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:53:48

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.324	5.324	0.000	96767	0.2508	0.2463	
4 DNX	1	6.211	6.211	0.000	71744	0.2503	0.2487	
5 HMX	1	6.877	6.877	0.000	44396	0.2500	0.2335	
6 MNX	1	7.751	7.751	0.000	76600	0.2918	0.2890	
7 2,4,6-Trinitrophenol	1	8.551	8.551	0.000	36365	0.2500	0.2416	a
8 RDX	1	9.184	9.184	0.000	51077	0.2500	0.2317	
9 Nitrobenzene	1	11.790	11.790	0.000	91122	0.2500	0.2373	
$ 10 1,2-Dinitrobenzene	1	12.784	12.784	0.000	62960	0.2500	0.2360	
11 3,5-Dinitroaniline	1	14.644	14.644	0.000	103109	0.2500	0.2490	
12 1,3-Dinitrobenzene	1	14.904	14.904	0.000	144154	0.2500	0.2462	
13 Nitroglycerin	2	15.484	15.484	0.000	313040	2.50	2.44	
14 o-Nitrotoluene	1	16.070	16.070	0.000	57785	0.2500	0.2432	
16 p-Nitrotoluene	1	16.297	16.297	0.000	52374	0.2500	0.2450	
17 4-Amino-2,6-dinitrotoluene	1	16.830	16.830	0.000	66325	0.2500	0.2438	
18 m-Nitrotoluene	1	17.164	17.164	0.000	66007	0.2500	0.2439	
19 2-Amino-4,6-dinitrotoluene	1	17.690	17.690	0.000	92394	0.2500	0.2358	Ma
20 1,3,5-Trinitrobenzene	1	17.704	17.704	0.000	102515	0.2500	0.2571	M
21 2,6-Dinitrotoluene	1	18.990	18.990	0.000	66066	0.2500	0.2409	
22 2,4-Dinitrotoluene	1	19.444	19.444	0.000	133458	0.2500	0.2452	
23 Tetryl	1	22.837	22.837	0.000	75424	0.2500	0.2449	
24 2,4,6-Trinitrotoluene	1	23.657	23.657	0.000	98375	0.2500	0.2491	
25 PETN	2	24.957	24.957	0.000	327642	2.50	2.48	M

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated
a - User Assigned ID

Reagents:

8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330 DMT_00015	Amount Added:	12.50	Units: uL

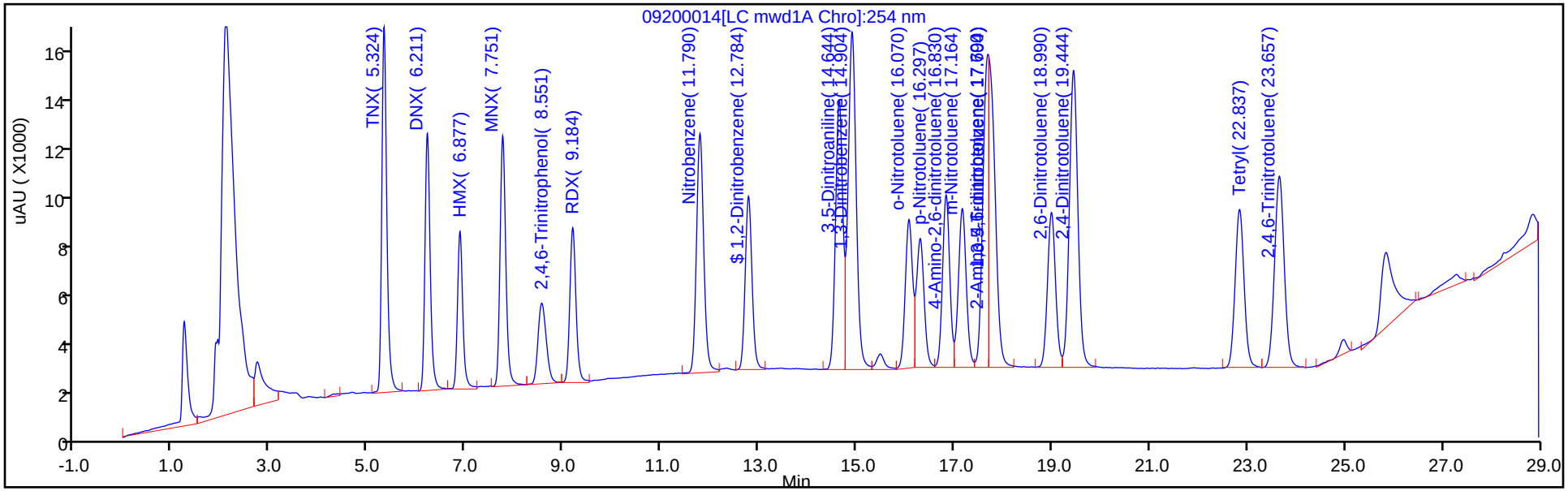
Report Date: 21-Sep-2023 16:09:15 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

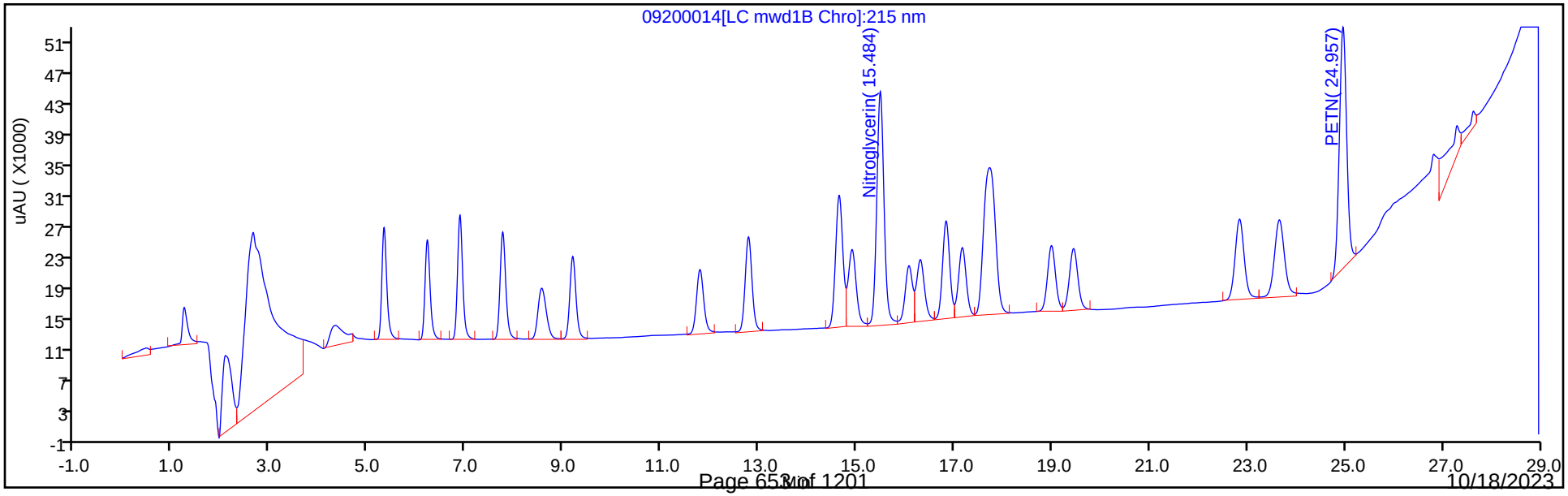
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200014.D

Injection Date:	20-Sep-2023 22:20:51	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 5			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023 8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

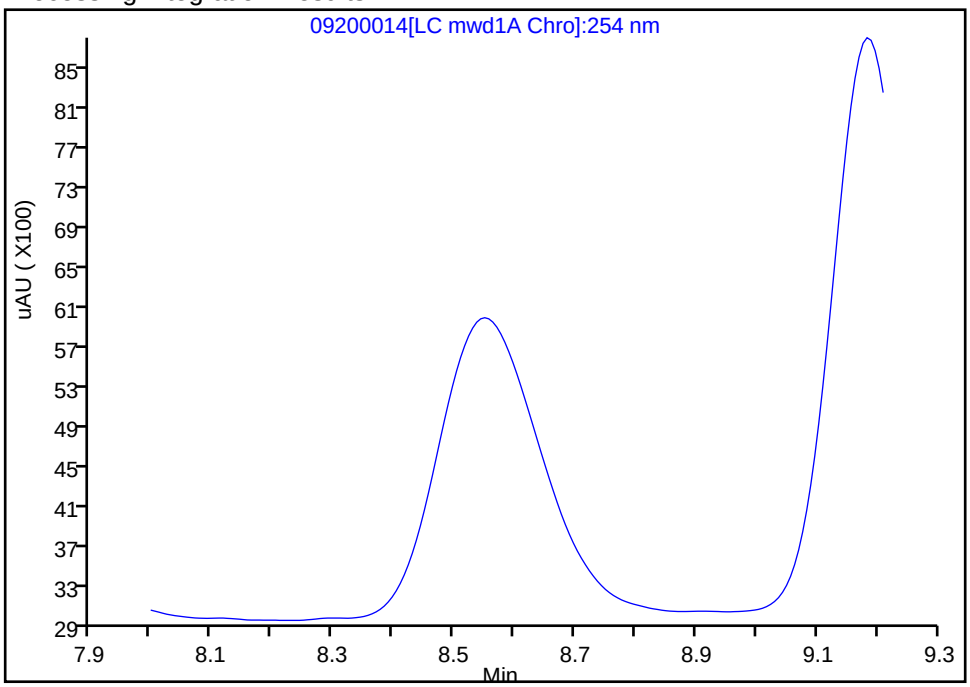
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200014.D				
Injection Date:	20-Sep-2023 22:20:51	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

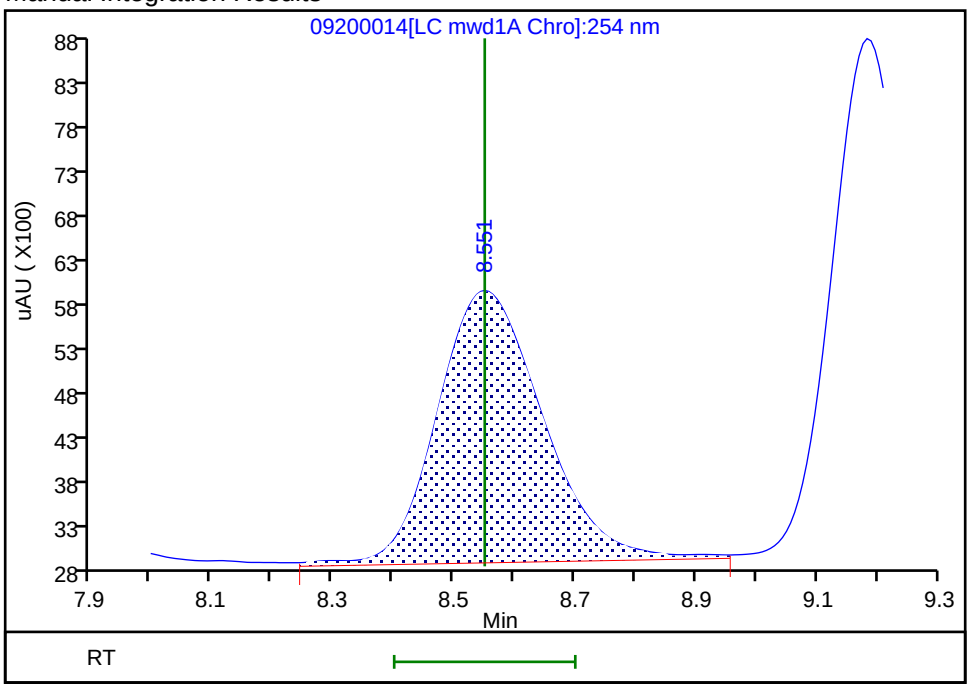
Not Detected
Expected RT: 8.55

Processing Integration Results



Manual Integration Results

RT: 8.55
Area: 36365
Amount: 0.241621
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:34 -06:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

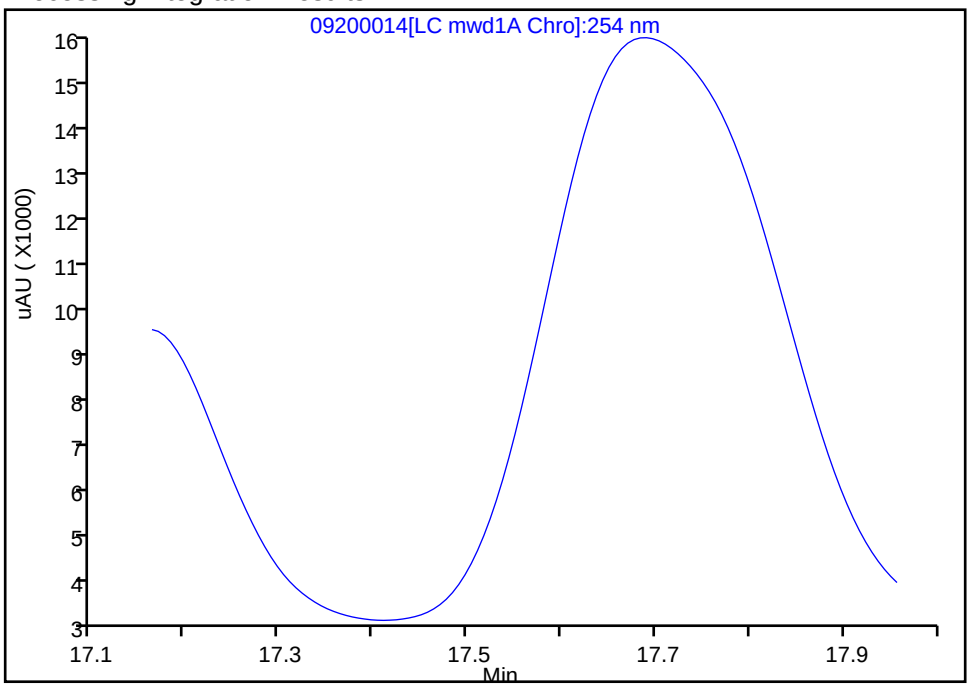
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200014.D				
Injection Date:	20-Sep-2023 22:20:51	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

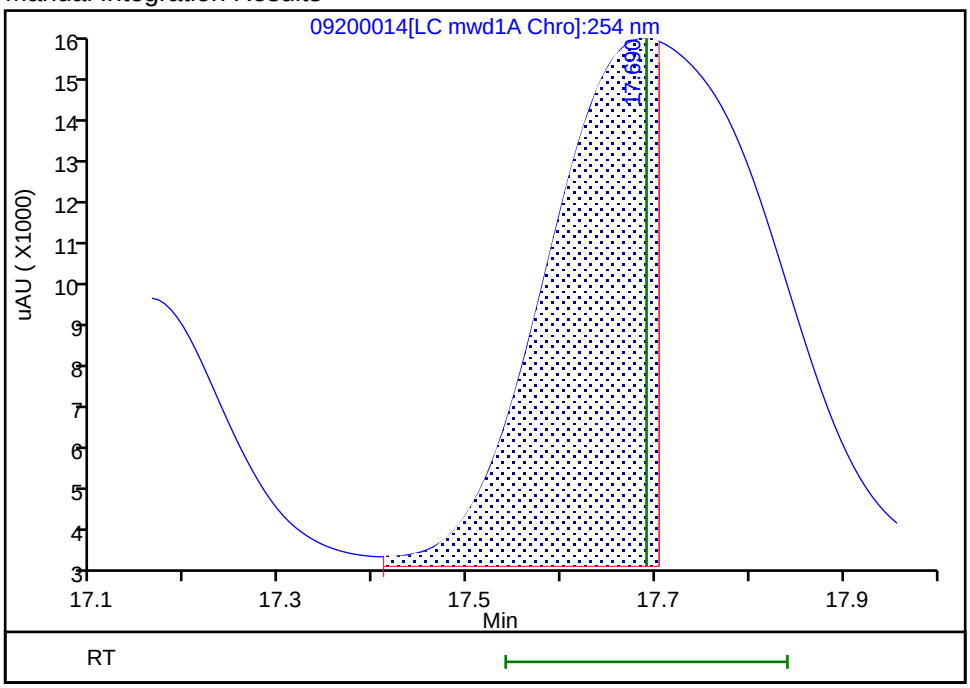
Not Detected
Expected RT: 17.69

Processing Integration Results



Manual Integration Results

RT: 17.69
Area: 92394
Amount: 0.235806
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:43 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

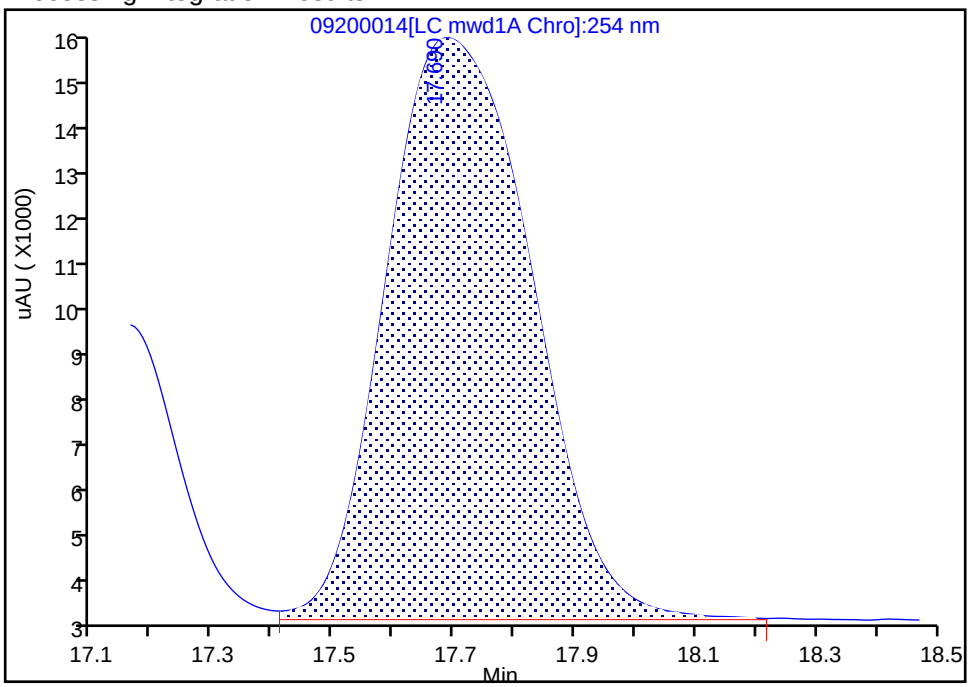
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200014.D				
Injection Date:	20-Sep-2023 22:20:51	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

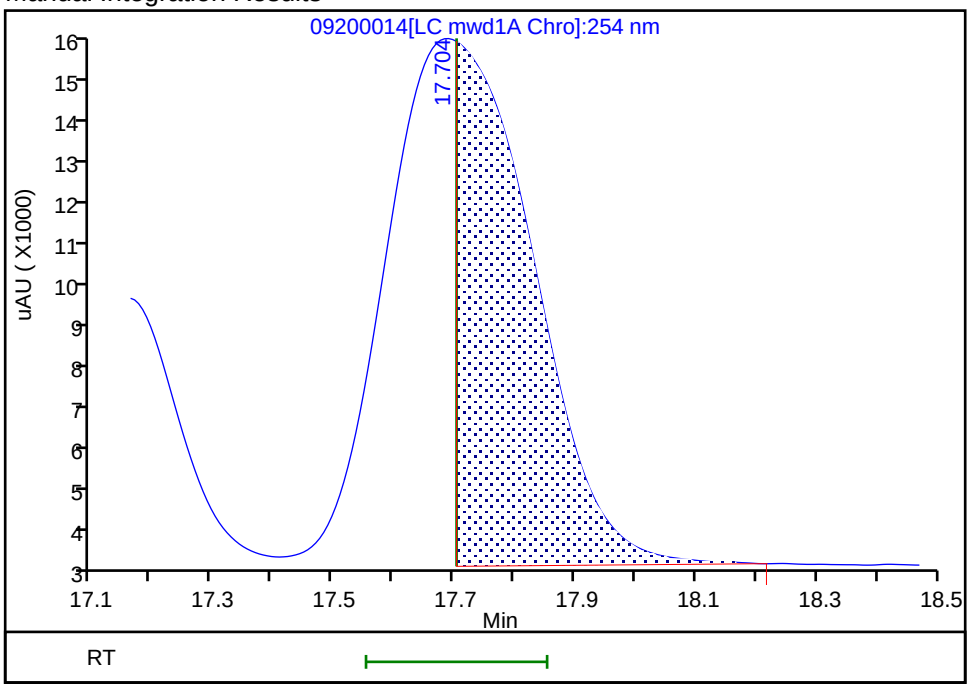
Processing Integration Results

RT: 17.69
Area: 194909
Amount: 0.318396
Amount Units: ug/ml



Manual Integration Results

RT: 17.70
Area: 102515
Amount: 0.257071
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:40 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

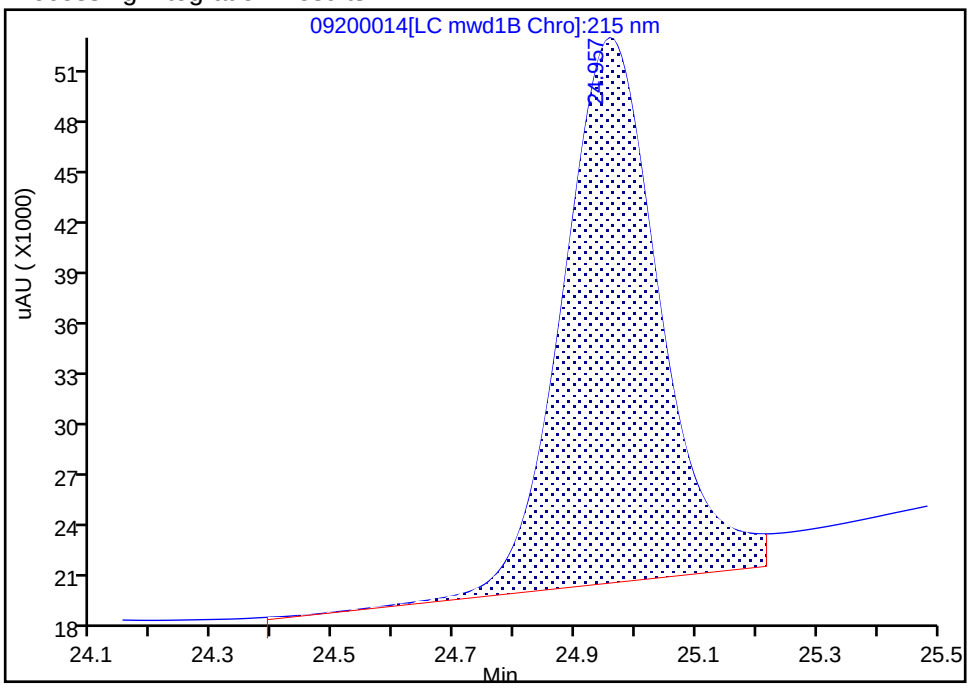
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200014.D				
Injection Date:	20-Sep-2023 22:20:51	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 5				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

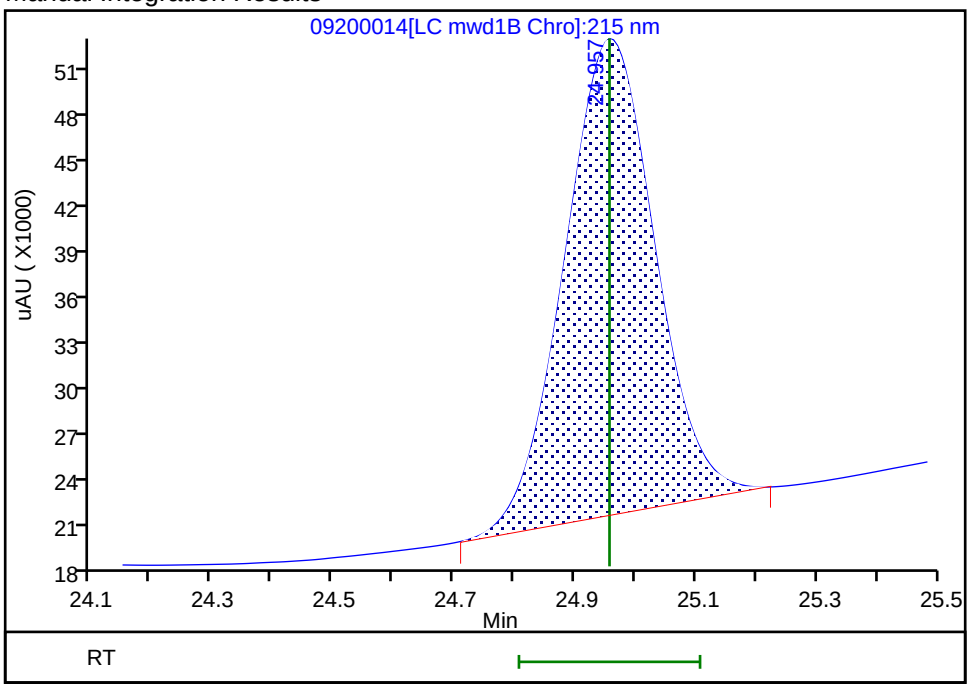
Processing Integration Results

RT: 24.96
Area: 362875
Amount: 2.740457
Amount Units: ug/ml



Manual Integration Results

RT: 24.96
Area: 327642
Amount: 2.480433
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:28 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200015.D
Lims ID: IC INT 4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 20-Sep-2023 22:55:45 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 4
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:15 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:53:57

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.332	5.324	0.008	38813	0.1003	0.0988	
4 DNX	1	6.225	6.211	0.014	29075	0.1001	0.1008	
5 HMX	1	6.899	6.877	0.022	19028	0.1000	0.1001	
6 MNX	1	7.772	7.751	0.021	30950	0.1167	0.1168	
7 2,4,6-Trinitrophenol	1	8.599	8.551	0.048	15233	0.1000	0.1020	
8 RDX	1	9.205	9.184	0.021	21516	0.1000	0.0976	
9 Nitrobenzene	1	11.805	11.790	0.015	38021	0.1000	0.0990	
$ 10 1,2-Dinitrobenzene	1	12.805	12.784	0.021	25765	0.1000	0.0966	
11 3,5-Dinitroaniline	1	14.665	14.644	0.021	41990	0.1000	0.1013	
12 1,3-Dinitrobenzene	1	14.925	14.904	0.021	58579	0.1000	0.1001	
13 Nitroglycerin	2	15.505	15.484	0.021	132632	1.00	1.03	
14 o-Nitrotoluene	1	16.092	16.070	0.022	24028	0.1000	0.1011	
16 p-Nitrotoluene	1	16.325	16.297	0.028	21805	0.1000	0.1020	
17 4-Amino-2,6-dinitrotoluene	1	16.852	16.830	0.022	27371	0.1000	0.1006	
18 m-Nitrotoluene	1	17.185	17.164	0.021	27484	0.1000	0.1016	
19 2-Amino-4,6-dinitrotoluene	1	17.712	17.690	0.022	41548	0.1000	0.1060	M
20 1,3,5-Trinitrobenzene	1	17.738	17.704	0.034	38099	0.1000	0.0955	M
21 2,6-Dinitrotoluene	1	19.012	18.990	0.022	27251	0.1000	0.0994	
22 2,4-Dinitrotoluene	1	19.458	19.444	0.014	54173	0.1000	0.0995	
23 Tetryl	1	22.859	22.837	0.022	30640	0.1000	0.0995	
24 2,4,6-Trinitrotoluene	1	23.672	23.657	0.015	40193	0.1000	0.1018	
25 PETN	2	24.972	24.957	0.015	131058	1.00	1.00	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	10.00	Units: uL
8330 DMT_00015	Amount Added:	5.00	Units: uL

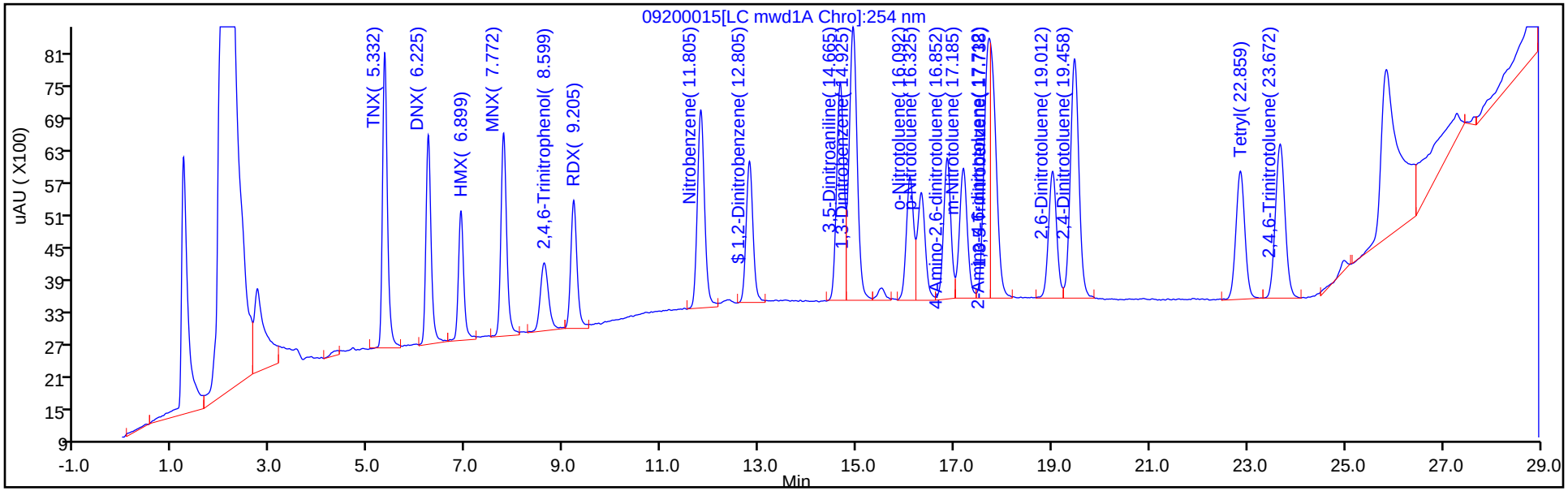
Report Date: 21-Sep-2023 16:09:16 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

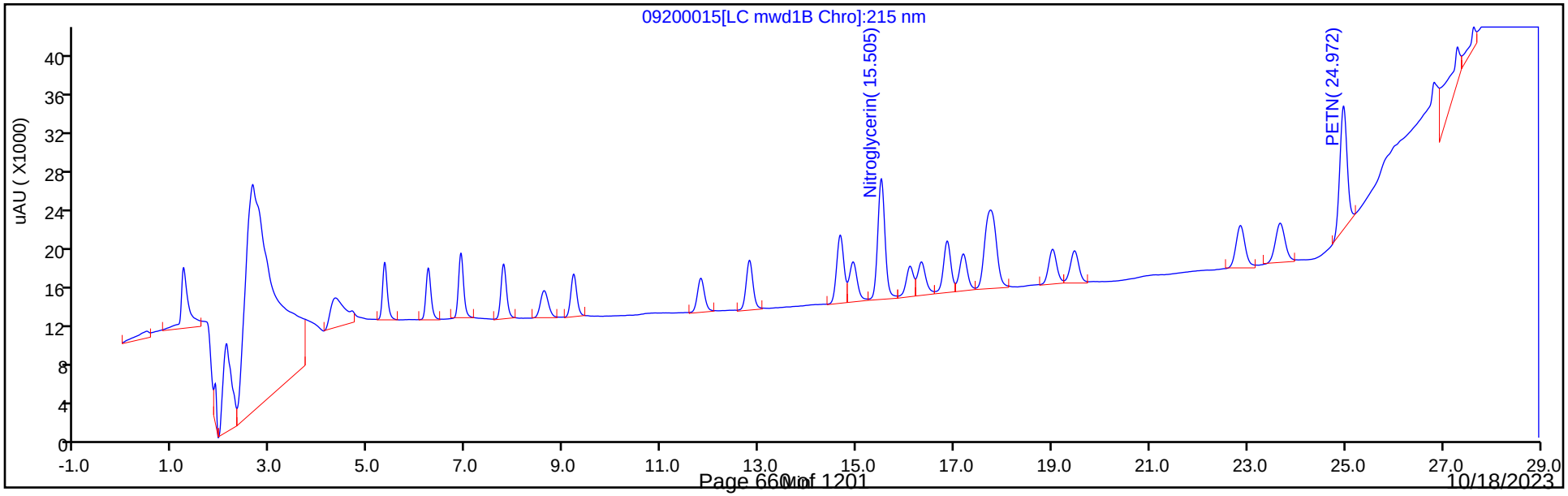
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200015.D

Injection Date:	20-Sep-2023 22:55:45	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 4			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

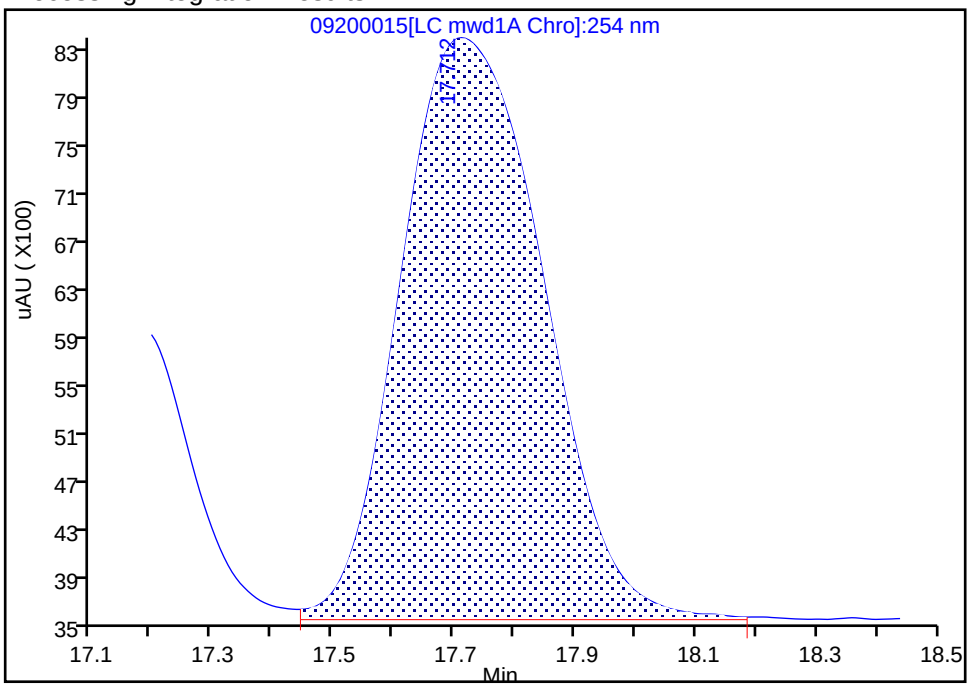
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200015.D				
Injection Date:	20-Sep-2023 22:55:45	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

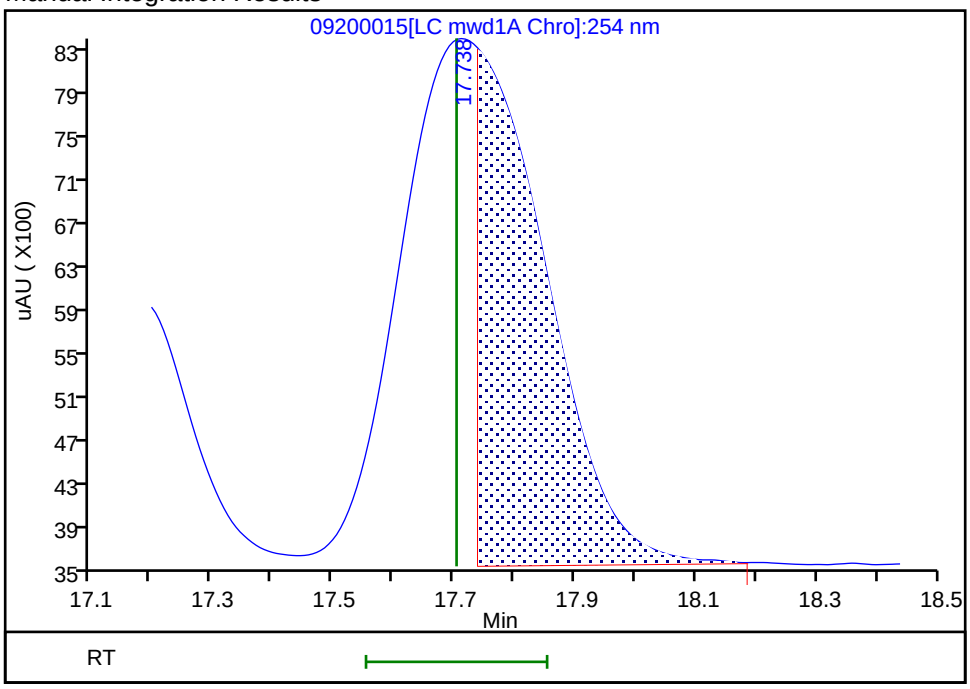
Processing Integration Results

RT: 17.71
Area: 79644
Amount: 0.139458
Amount Units: ug/ml



Manual Integration Results

RT: 17.74
Area: 38099
Amount: 0.095539
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:53:54 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

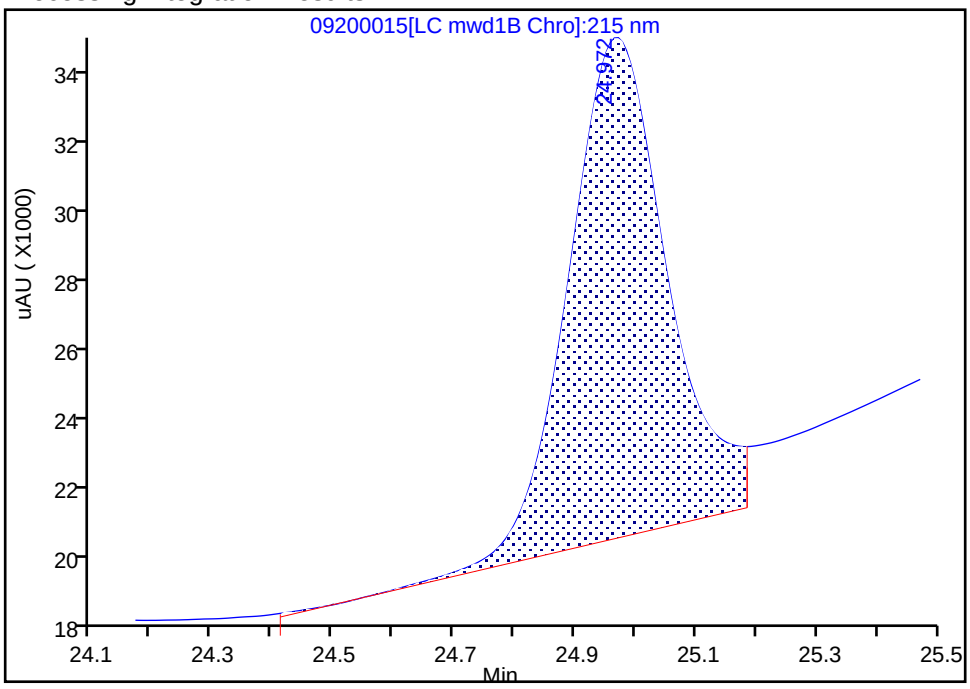
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200015.D				
Injection Date:	20-Sep-2023 22:55:45	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 4				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	15	Worklist Smp#:	15
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

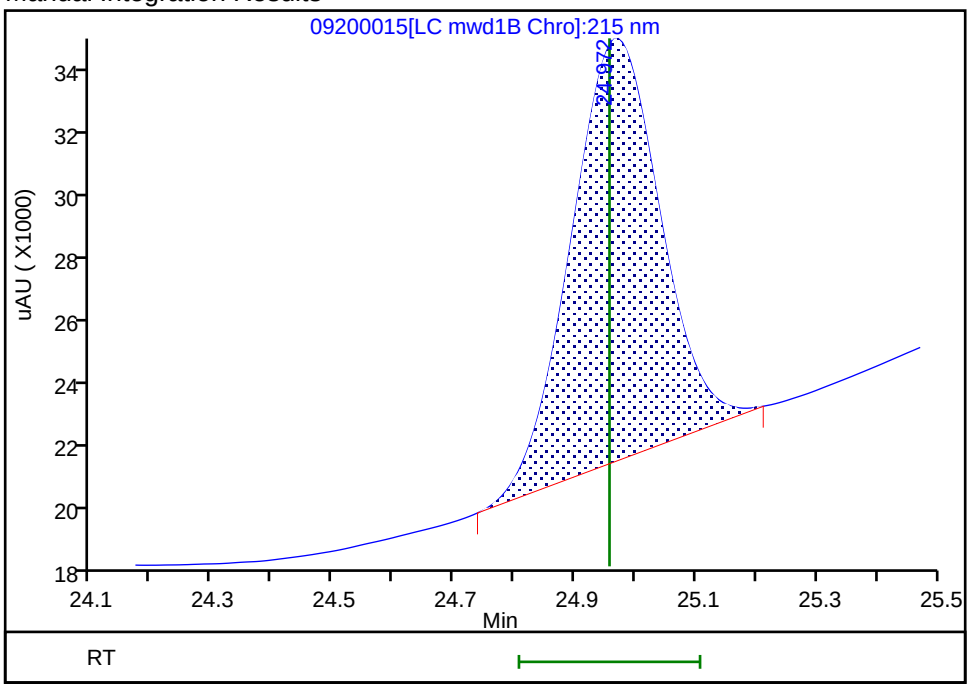
Processing Integration Results

RT: 24.97
Area: 156547
Amount: 1.157497
Amount Units: ug/ml



Manual Integration Results

RT: 24.97
Area: 131058
Amount: 1.003879
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:24 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200016.D
Lims ID: IC INT 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 20-Sep-2023 23:30:44 ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 3
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:16 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:54:10

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.337	5.324	0.013	19589	0.0502	0.0499	
4 DNX	1	6.224	6.211	0.013	14311	0.0501	0.0496	
5 HMX	1	6.897	6.877	0.020	10122	0.0500	0.0532	
6 MNX	1	7.777	7.751	0.026	15652	0.0584	0.0591	
7 2,4,6-Trinitrophenol	1	8.630	8.551	0.079	7857	0.0500	0.0533	
8 RDX	1	9.210	9.184	0.026	11669	0.0500	0.0529	
9 Nitrobenzene	1	11.810	11.790	0.020	19023	0.0500	0.0495	
$ 10 1,2-Dinitrobenzene	1	12.803	12.784	0.019	12869	0.0500	0.0482	
11 3,5-Dinitroaniline	1	14.670	14.644	0.026	21030	0.0500	0.0507	
12 1,3-Dinitrobenzene	1	14.930	14.904	0.026	29431	0.0500	0.0503	
13 Nitroglycerin	2	15.503	15.484	0.019	70087	0.5000	0.5456	
14 o-Nitrotoluene	1	16.097	16.070	0.027	12234	0.0500	0.0515	
16 p-Nitrotoluene	1	16.323	16.297	0.026	11398	0.0500	0.0533	
17 4-Amino-2,6-dinitrotoluene	1	16.857	16.830	0.027	13571	0.0500	0.0499	
18 m-Nitrotoluene	1	17.190	17.164	0.026	13737	0.0500	0.0508	
19 2-Amino-4,6-dinitrotoluene	1	17.717	17.690	0.027	18455	0.0500	0.0471	M
20 1,3,5-Trinitrobenzene	1	17.730	17.704	0.026	21215	0.0500	0.0532	M
21 2,6-Dinitrotoluene	1	19.023	18.990	0.033	13500	0.0500	0.0492	
22 2,4-Dinitrotoluene	1	19.477	19.444	0.033	26513	0.0500	0.0487	
23 Tetryl	1	22.890	22.837	0.053	15660	0.0500	0.0509	
24 2,4,6-Trinitrotoluene	1	23.697	23.657	0.040	19821	0.0500	0.0502	
25 PETN	2	24.997	24.957	0.040	64272	0.5000	0.5022	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	5.00	Units: uL
8330 DMT_00015	Amount Added:	2.50	Units: uL

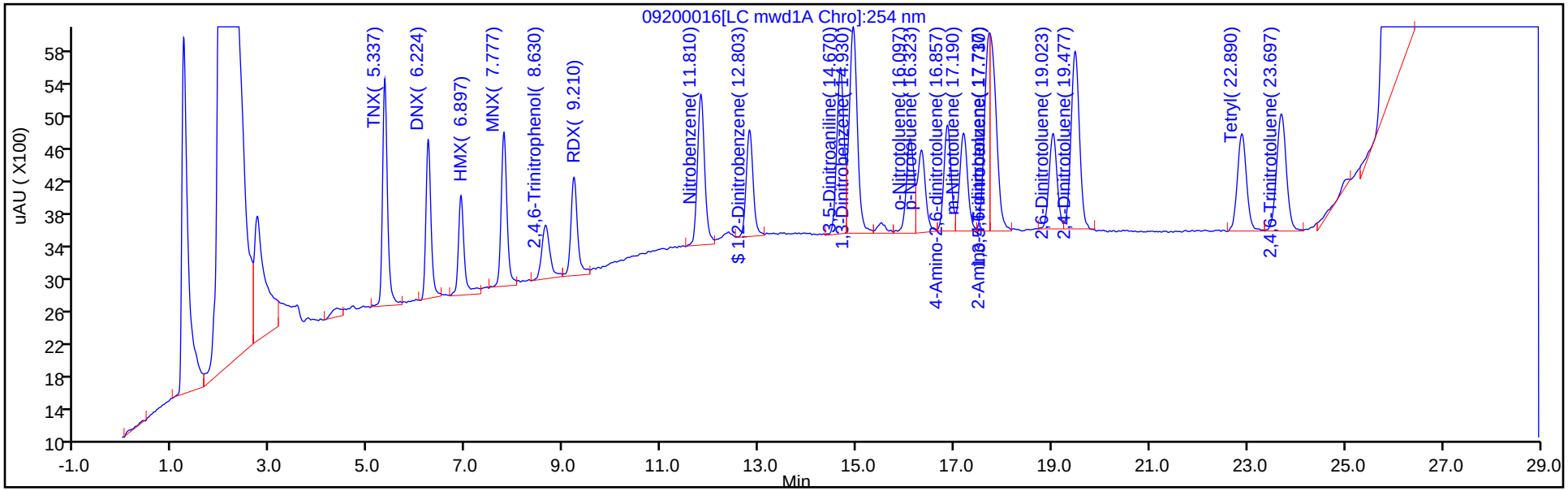
Report Date: 21-Sep-2023 16:09:16 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

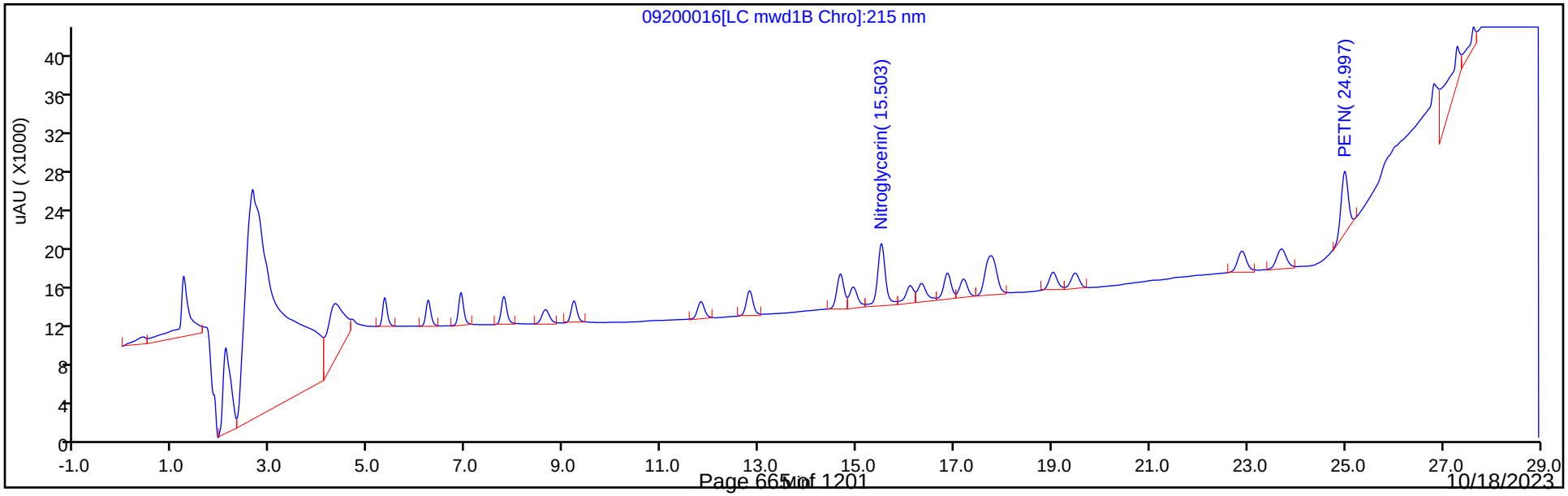
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200016.D

Injection Date:	20-Sep-2023 23:30:44	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 3			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

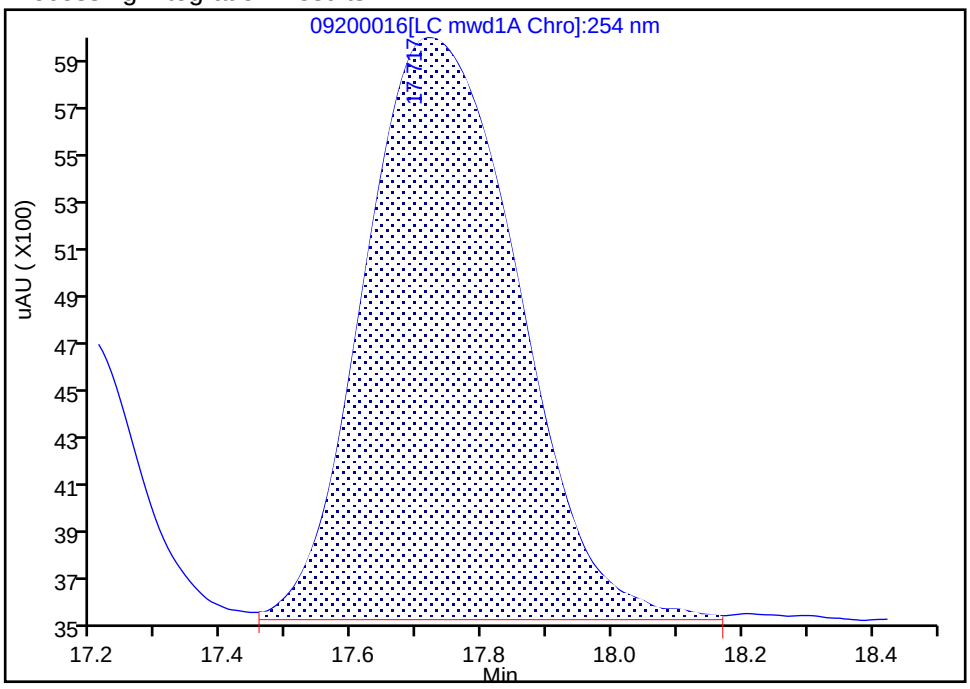
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200016.D				
Injection Date:	20-Sep-2023 23:30:44	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 3				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	16	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

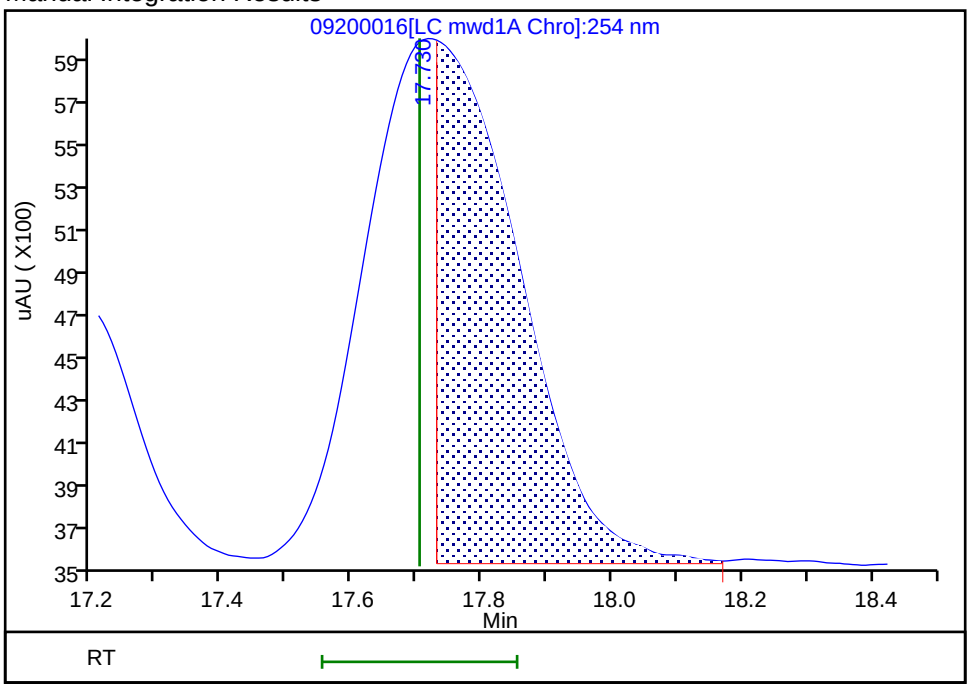
Processing Integration Results

RT: 17.72
Area: 39664
Amount: 0.075560
Amount Units: ug/ml



Manual Integration Results

RT: 17.73
Area: 21215
Amount: 0.053200
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:06 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

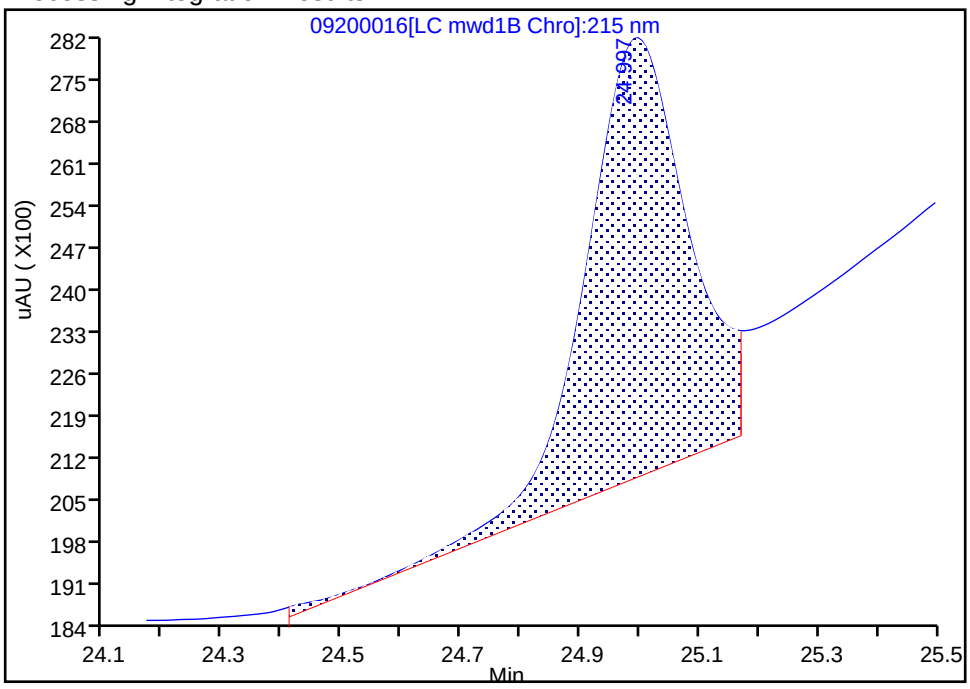
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200016.D
Injection Date: 20-Sep-2023 23:30:44 Instrument ID: CHHPLC_X5
Lims ID: IC INT 3
Client ID:
Operator ID: JZ/JG ALS Bottle#: 16 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

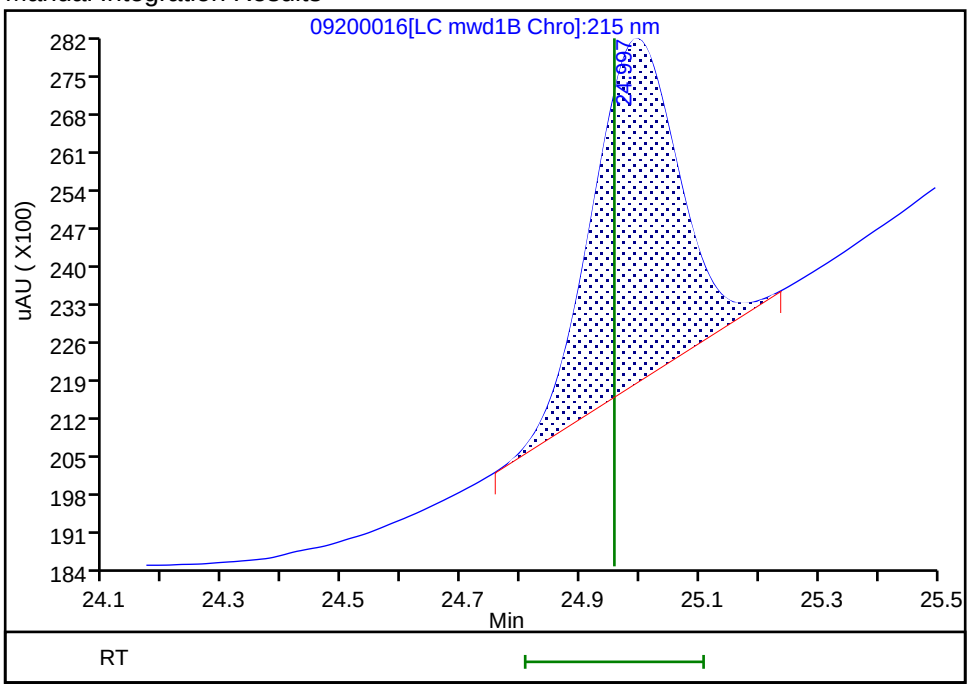
Processing Integration Results

RT: 25.00
Area: 87469
Amount: 0.622994
Amount Units: ug/ml



Manual Integration Results

RT: 25.00
Area: 64272
Amount: 0.502246
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:20 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200017.D
Lims ID: IC INT 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Sep-2023 00:05:41 ALS Bottle#: 17 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 2
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:17 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:54:19

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.332	5.324	0.008	8166	0.0201	0.0208	
4 DNX	1	6.225	6.211	0.014	5577	0.0200	0.0193	
5 HMX	1	6.899	6.877	0.022	4021	0.0200	0.0212	
6 MNX	1	7.779	7.751	0.028	6284	0.0233	0.0237	
7 2,4,6-Trinitrophenol	1	8.645	8.551	0.094	3147	0.0200	0.0222	
8 RDX	1	9.212	9.184	0.028	4787	0.0200	0.0217	
9 Nitrobenzene	1	11.812	11.790	0.022	7865	0.0200	0.0205	
$ 10 1,2-Dinitrobenzene	1	12.812	12.784	0.028	6087	0.0200	0.0228	
11 3,5-Dinitroaniline	1	14.665	14.644	0.021	8469	0.0200	0.0203	
12 1,3-Dinitrobenzene	1	14.925	14.904	0.021	11517	0.0200	0.0197	
13 Nitroglycerin	2	15.505	15.484	0.021	25216	0.2000	0.1963	
14 o-Nitrotoluene	1	16.085	16.070	0.015	4996	0.0200	0.0210	
16 p-Nitrotoluene	1	16.325	16.297	0.028	4349	0.0200	0.0203	
17 4-Amino-2,6-dinitrotoluene	1	16.852	16.830	0.022	5544	0.0200	0.0204	
18 m-Nitrotoluene	1	17.179	17.164	0.015	5268	0.0200	0.0195	
19 2-Amino-4,6-dinitrotoluene	1	17.712	17.690	0.022	7537	0.0200	0.0192	M
20 1,3,5-Trinitrobenzene	1	17.732	17.704	0.028	8026	0.0200	0.0201	M
21 2,6-Dinitrotoluene	1	19.019	18.990	0.029	5759	0.0200	0.0210	
22 2,4-Dinitrotoluene	1	19.465	19.444	0.021	11205	0.0200	0.0206	
23 Tetryl	1	22.879	22.837	0.042	6238	0.0200	0.0203	
24 2,4,6-Trinitrotoluene	1	23.685	23.657	0.028	7880	0.0200	0.0200	
25 PETN	2	24.992	24.957	0.035	23524	0.2000	0.1962	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	2.00	Units: uL
8330 DMT_00015	Amount Added:	1.00	Units: uL

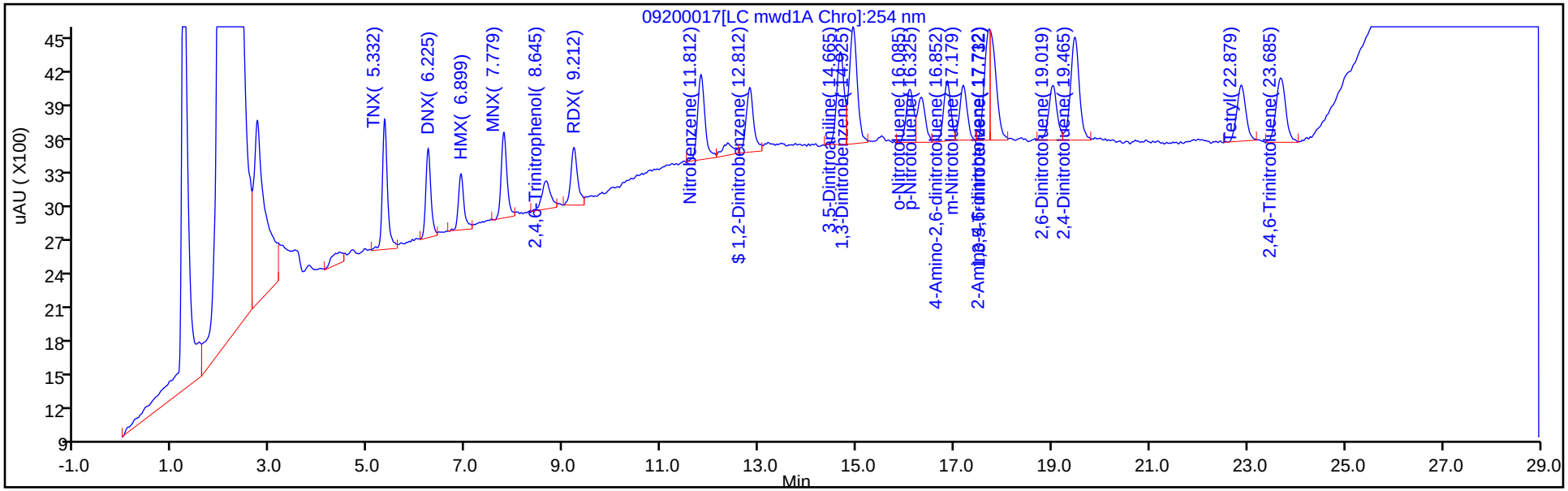
Report Date: 21-Sep-2023 16:09:17 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

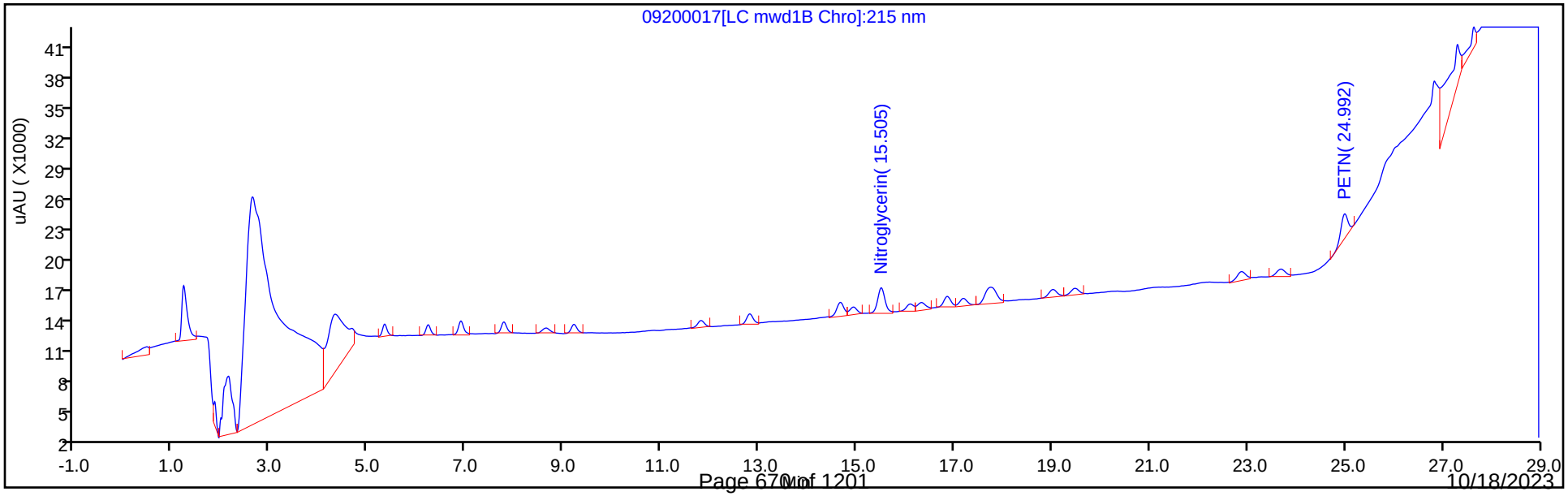
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200017.D

Injection Date:	21-Sep-2023 00:05:41	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 2			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

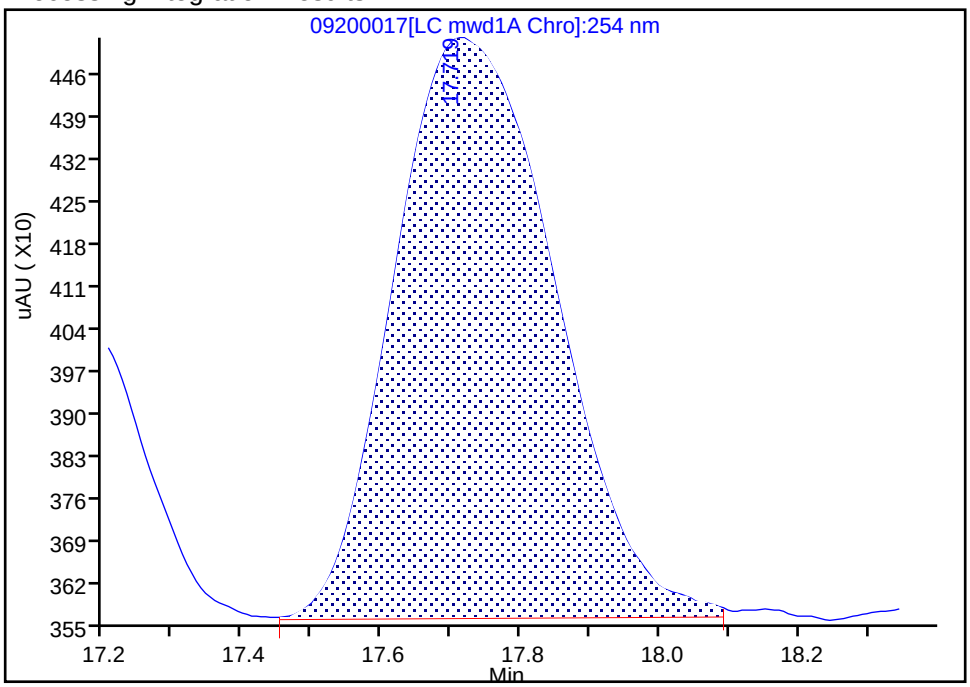
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200017.D				
Injection Date:	21-Sep-2023 00:05:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

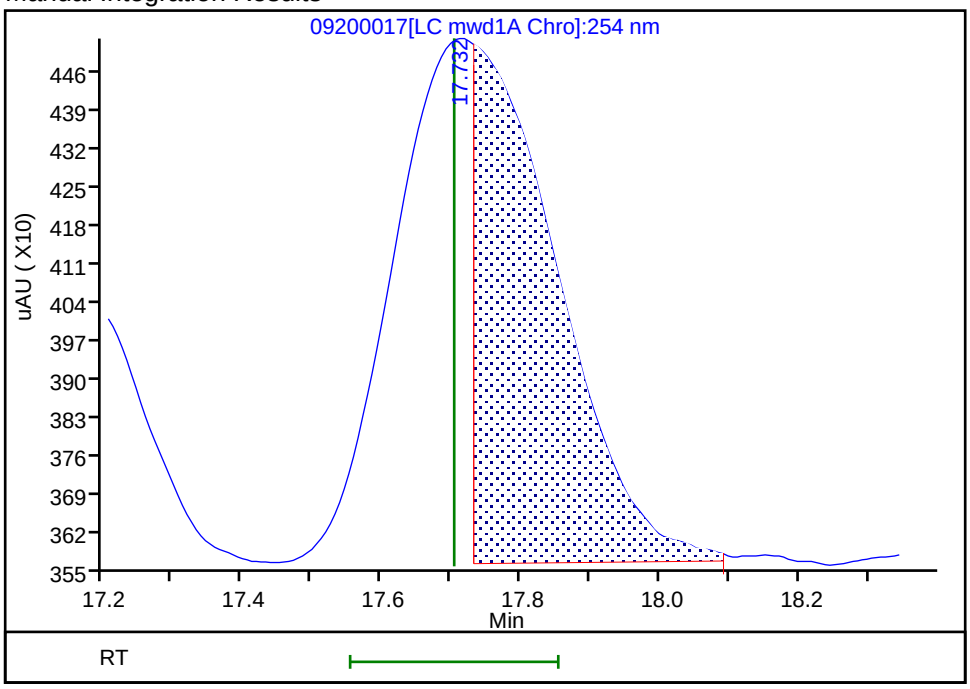
Processing Integration Results

RT: 17.72
Area: 15562
Amount: 0.027985
Amount Units: ug/ml



Manual Integration Results

RT: 17.73
Area: 8026
Amount: 0.020126
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:17 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

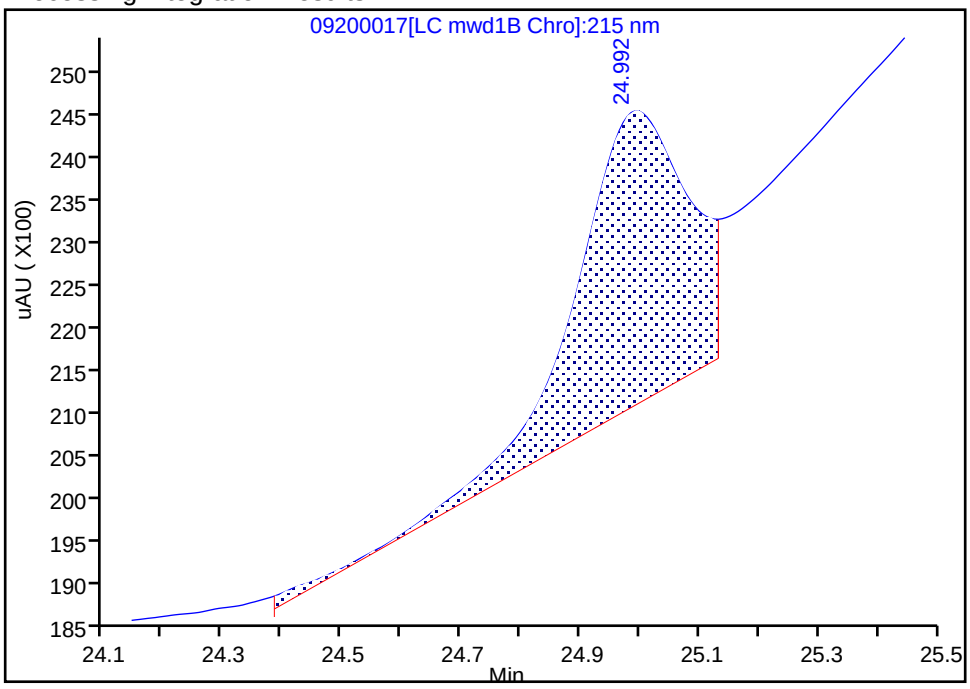
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200017.D				
Injection Date:	21-Sep-2023 00:05:41	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 2				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	17	Worklist Smp#:	17
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

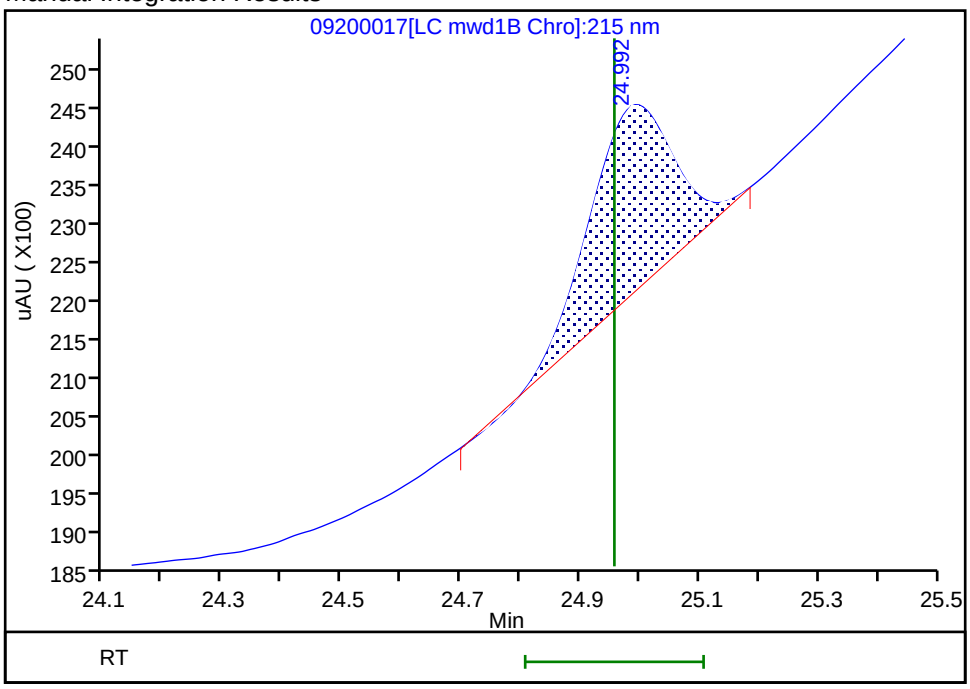
Processing Integration Results

RT: 24.99
Area: 44965
Amount: 0.276574
Amount Units: ug/ml



Manual Integration Results

RT: 24.99
Area: 23524
Amount: 0.196186
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:16 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D
Lims ID: IC INT 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 21-Sep-2023 00:40:35 ALS Bottle#: 18 Worklist Smp#: 18
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC INT 1
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub6

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:17 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:54:48

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.337	5.324	0.013	4274	0.0100	0.0109	
4 DNX	1	6.224	6.211	0.013	3185	0.0100	0.0110	
5 HMX	1	6.890	6.877	0.013	2354	0.0100	0.0124	
6 MNX	1	7.777	7.751	0.026	3205	0.0117	0.0121	
7 2,4,6-Trinitrophenol	1	8.644	8.551	0.093	1198	0.0100	0.009326	M
8 RDX	1	9.217	9.184	0.033	2784	0.0100	0.0126	
9 Nitrobenzene	1	11.817	11.790	0.027	4374	0.0100	0.0114	
$ 10 1,2-Dinitrobenzene	1	12.797	12.784	0.013	3100	0.0100	0.0116	
11 3,5-Dinitroaniline	1	14.650	14.644	0.006	4155	0.0100	0.009883	
12 1,3-Dinitrobenzene	1	14.923	14.904	0.019	5958	0.0100	0.0102	
13 Nitroglycerin	2	15.497	15.484	0.013	13016	0.1000	0.1013	
14 o-Nitrotoluene	1	16.097	16.070	0.027	2442	0.0100	0.0103	M
16 p-Nitrotoluene	1	16.323	16.297	0.026	1802	0.0100	0.008431	M
17 4-Amino-2,6-dinitrotoluene	1	16.857	16.830	0.027	2844	0.0100	0.0105	
18 m-Nitrotoluene	1	17.177	17.164	0.013	2758	0.0100	0.0102	
19 2-Amino-4,6-dinitrotoluene	1	17.730	17.690	0.040	3899	0.0100	0.0100	M
20 1,3,5-Trinitrobenzene	1	17.737	17.704	0.033	4118	0.0100	0.0103	M
21 2,6-Dinitrotoluene	1	19.023	18.990	0.033	3091	0.0100	0.0113	
22 2,4-Dinitrotoluene	1	19.463	19.444	0.019	5602	0.0100	0.0103	
23 Tetryl	1	22.884	22.837	0.047	3199	0.0100	0.0104	
24 2,4,6-Trinitrotoluene	1	23.684	23.657	0.027	3814	0.0100	0.009658	
25 PETN	2	25.010	24.957	0.053	10832	0.1000	0.1009	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330IntermStk_00078	Amount Added:	1.00	Units: uL
8330 DMT_00015	Amount Added:	0.50	Units: uL

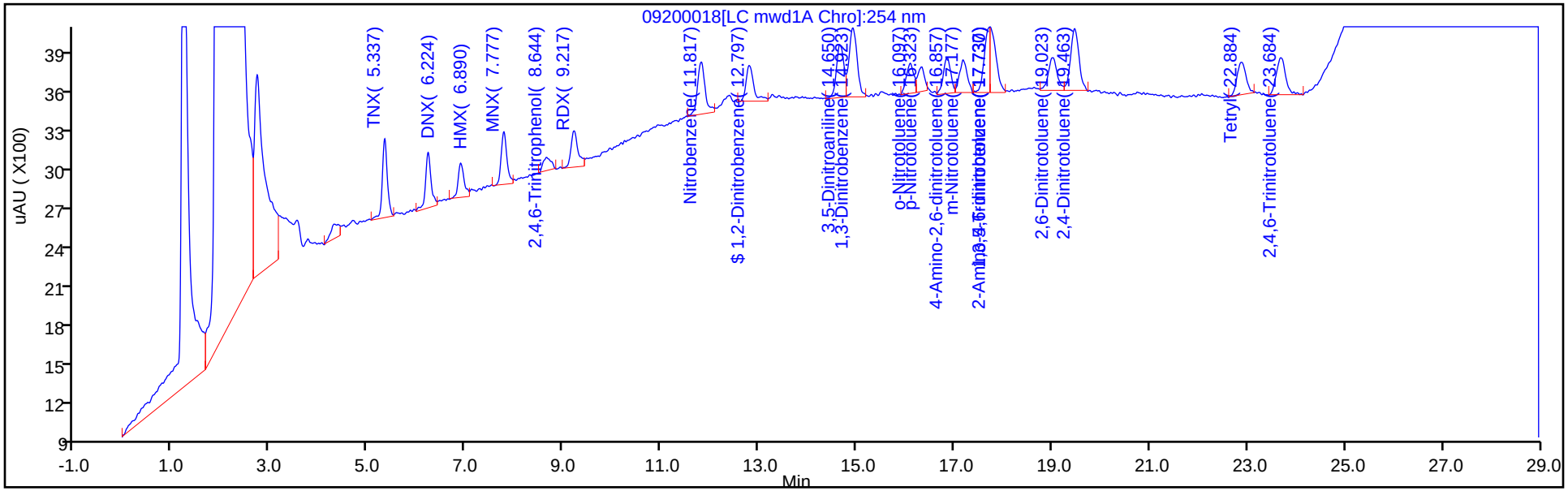
Report Date: 21-Sep-2023 16:09:17 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

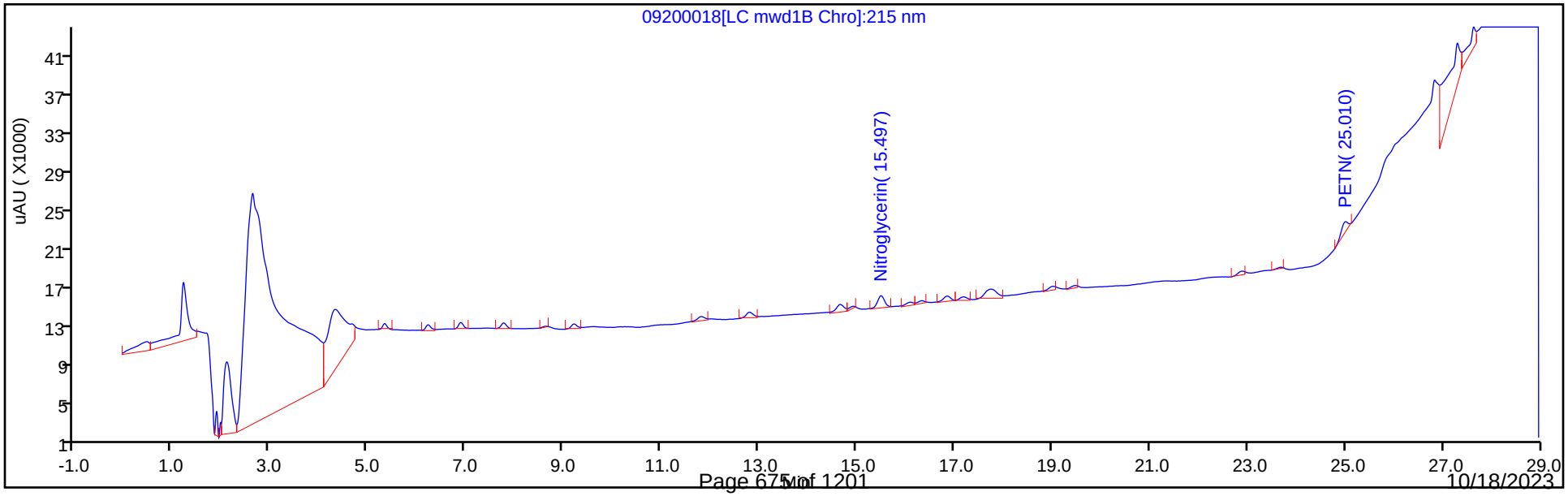
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D

Injection Date:	21-Sep-2023 00:40:35	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC INT 1			Worklist Smp#:	18
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023 8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

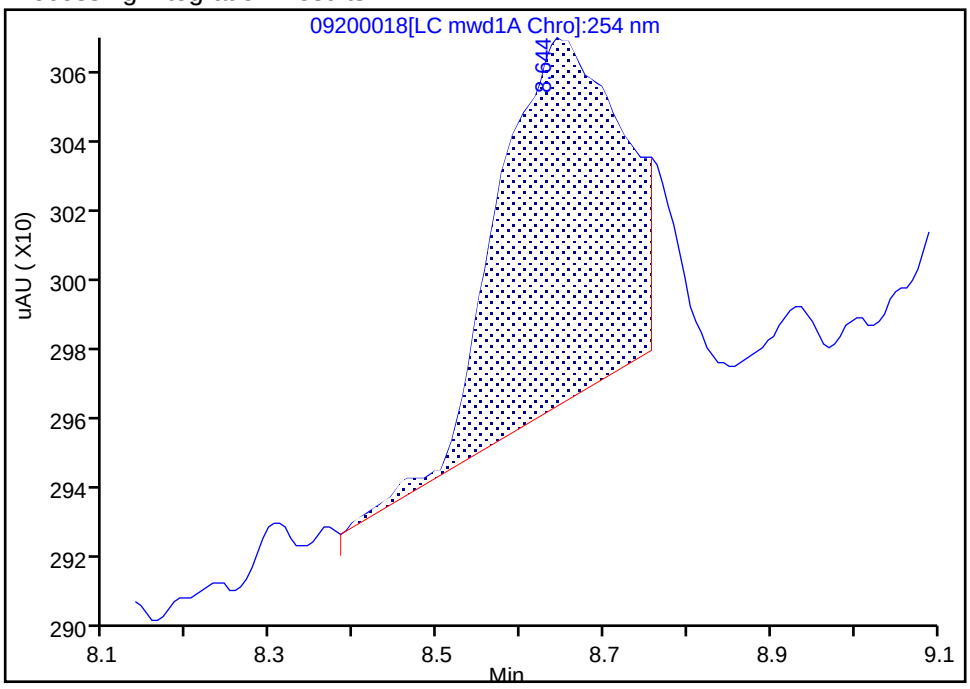
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D				
Injection Date:	21-Sep-2023 00:40:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

7 2,4,6-Trinitrophenol, CAS: 88-89-1

Signal: 1

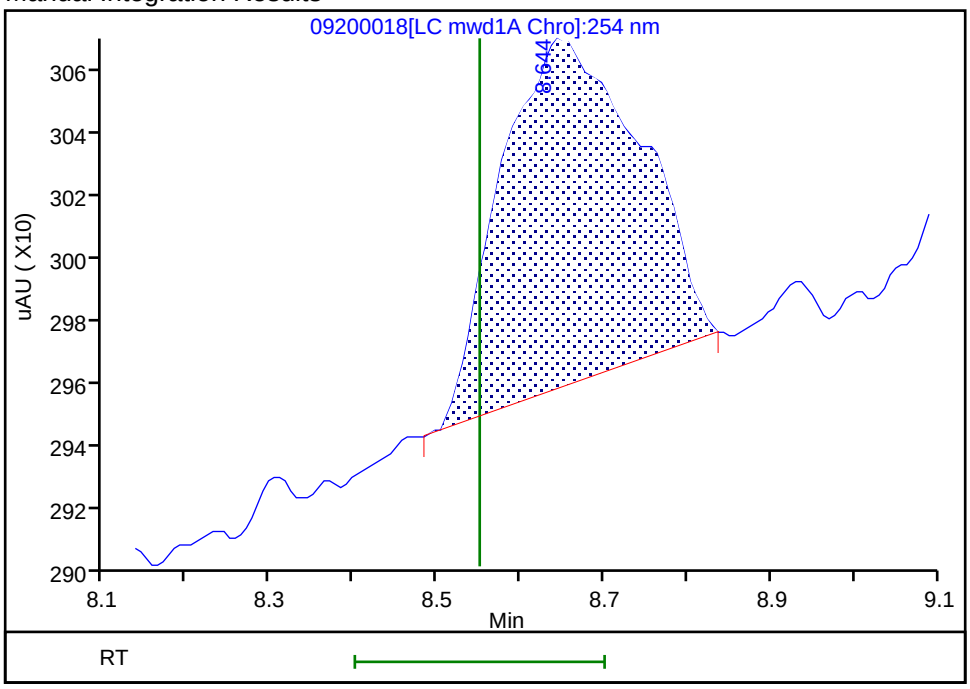
Processing Integration Results

RT: 8.64
Area: 1007
Amount: 0.007073
Amount Units: ug/ml



Manual Integration Results

RT: 8.64
Area: 1198
Amount: 0.009326
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:47 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

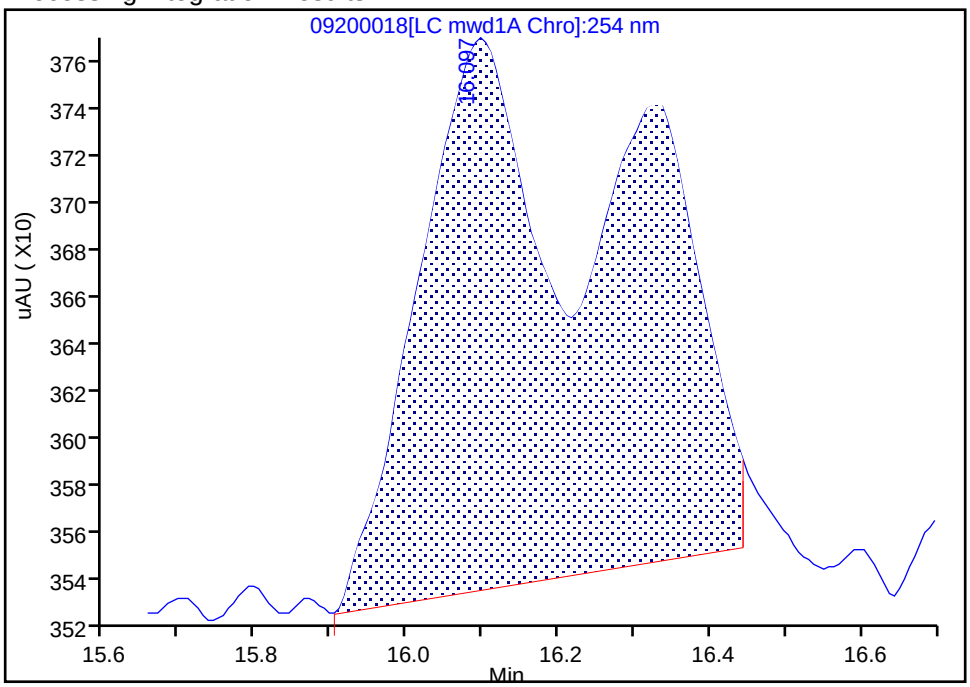
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D				
Injection Date:	21-Sep-2023 00:40:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

14 o-Nitrotoluene, CAS: 88-72-2

Signal: 1

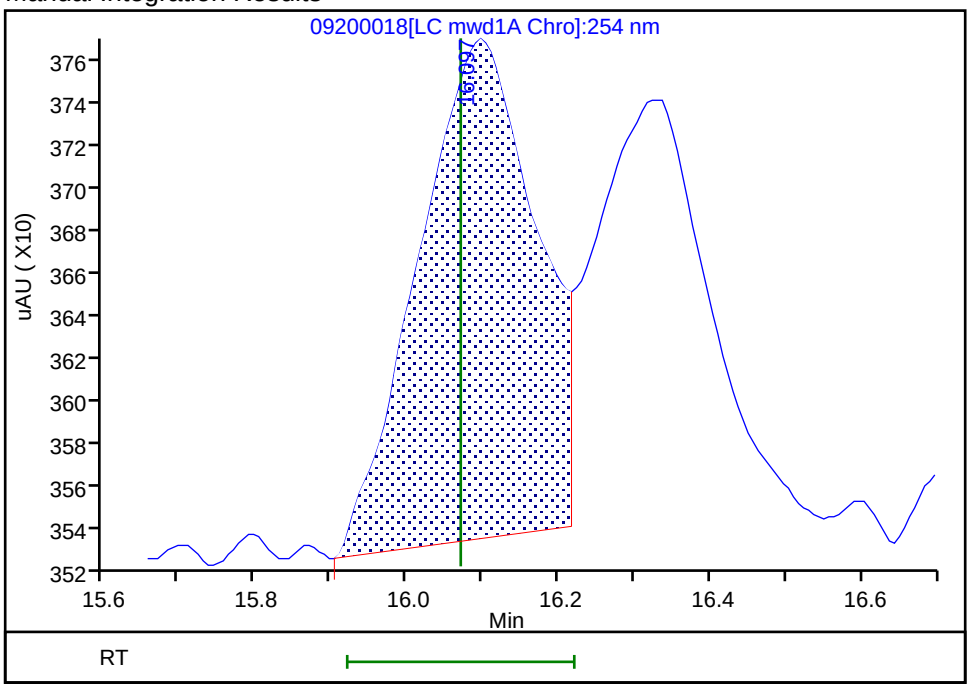
Processing Integration Results

RT: 16.10
Area: 4234
Amount: 0.012292
Amount Units: ug/ml



Manual Integration Results

RT: 16.10
Area: 2442
Amount: 0.010278
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:40 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

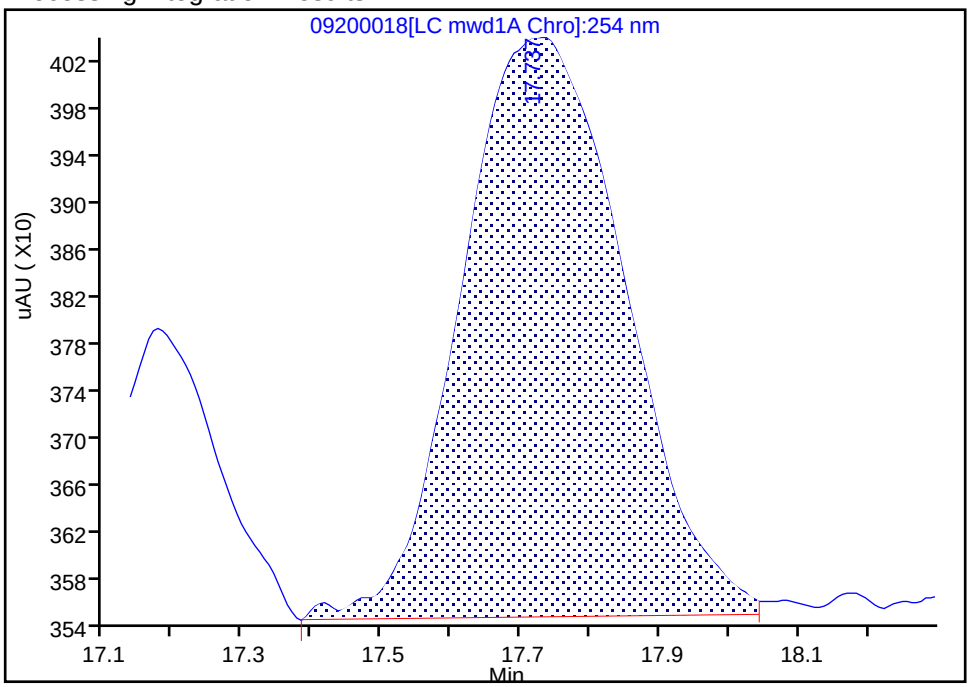
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D				
Injection Date:	21-Sep-2023 00:40:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

20 1,3,5-Trinitrobenzene, CAS: 99-35-4

Signal: 1

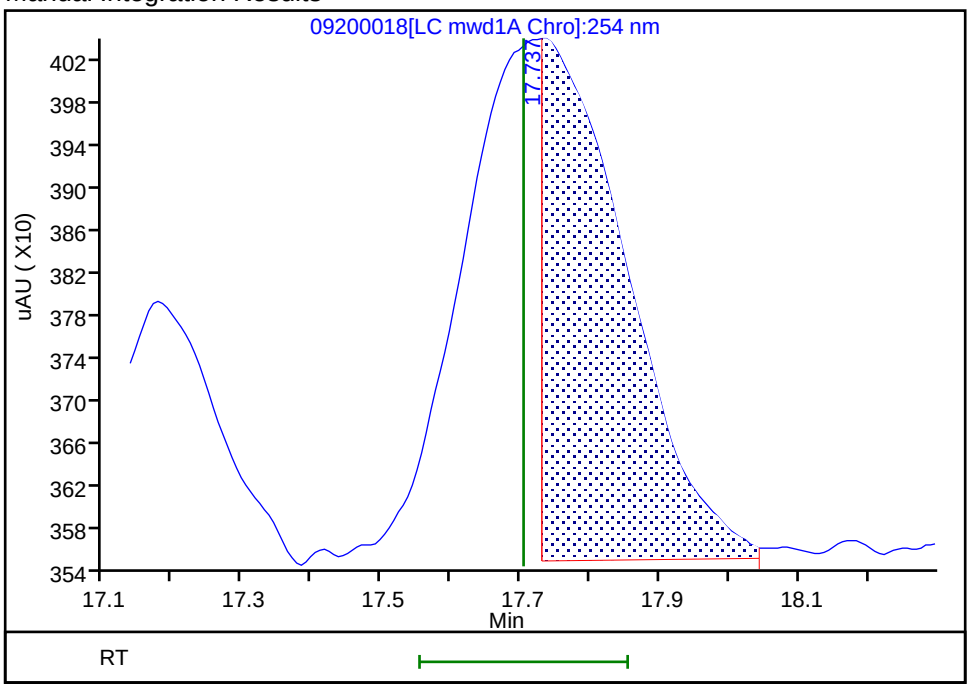
Processing Integration Results

RT: 17.74
Area: 8014
Amount: 0.013587
Amount Units: ug/ml



Manual Integration Results

RT: 17.74
Area: 4118
Amount: 0.010326
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:30 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

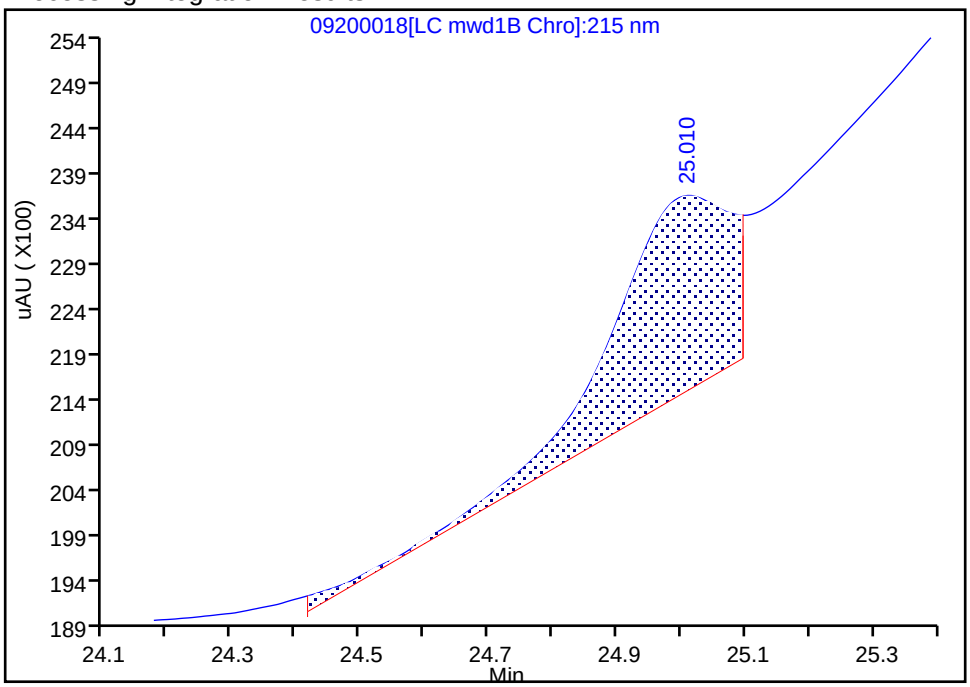
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D				
Injection Date:	21-Sep-2023 00:40:35	Instrument ID:	CHHPLC_X5		
Lims ID:	IC INT 1				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	18	Worklist Smp#:	18
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1B, 215 nm		

25 PETN, CAS: 78-11-5

Signal: 1

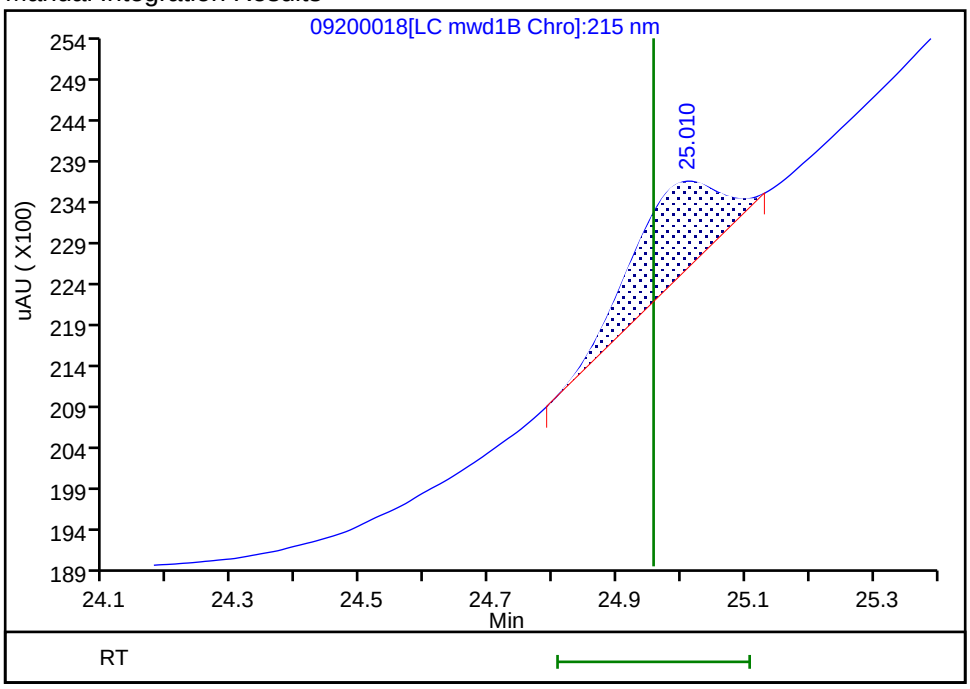
Processing Integration Results

RT: 25.01
Area: 28300
Amount: 0.095720
Amount Units: ug/ml



Manual Integration Results

RT: 25.01
Area: 10832
Amount: 0.100855
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:12 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-182443-1 | Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-phenyl ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/21/2023 01:50 | Calibration End Date: 09/21/2023 05:55 | Calibration ID: 84767

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/27	09200027.D
Level 2	IC 280-626878/26	09200026.D
Level 3	IC 280-626878/25	09200025.D
Level 4	IC 280-626878/24	09200024.D
Level 5	IC 280-626878/23	09200023.D
Level 6	IC 280-626878/22	09200022.D
Level 7	IC 280-626878/21	09200021.D
Level 8	IC 280-626878/20	09200020.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	+++++	4.262	4.249	4.245	4.246	4.237	4.240	4.239			4.096 - 4.396	4.245
2,4-diamino-6-nitrotoluene	+++++	4.855	4.869	4.865	4.866	4.864	4.866	4.879			4.716 - 5.016	4.866

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Denver Job No.: 280-182443-1 Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 GC Column: Luna-phenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/21/2023 01:50 Calibration End Date: 09/21/2023 05:55 Calibration ID: 84767

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/27	09200027.D
Level 2	IC 280-626878/26	09200026.D
Level 3	IC 280-626878/25	09200025.D
Level 4	IC 280-626878/24	09200024.D
Level 5	IC 280-626878/23	09200023.D
Level 6	IC 280-626878/22	09200022.D
Level 7	IC 280-626878/21	09200021.D
Level 8	IC 280-626878/20	09200020.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
2,6-diamino-4-nitrotoluene	+++++ 385363	535900 394247	415590 389884	391760 393237	Lin2	5943.08843	377504.603							0.9980		0.9900
2,4-diamino-6-nitrotoluene	+++++ 239948	354850 247390	267940 246270	245540 239736	Lin2	4610.22349	233901.326							0.9980		0.9900

Note: The M1 coefficient is the same as Ave CF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Denver | Job No.: 280-182443-1 | Analy Batch No.: 626878

SDG No.:

Instrument ID: CHHPLC_X5 | GC Column: Luna-pheny ID: 4.6(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 09/21/2023 01:50 | Calibration End Date: 09/21/2023 05:55 | Calibration ID: 84767

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-626878/27	09200027.D
Level 2	IC 280-626878/26	09200026.D
Level 3	IC 280-626878/25	09200025.D
Level 4	IC 280-626878/24	09200024.D
Level 5	IC 280-626878/23	09200023.D
Level 6	IC 280-626878/22	09200022.D
Level 7	IC 280-626878/21	09200021.D
Level 8	IC 280-626878/20	09200020.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Lin2	+++++ 275973	21436 389884	41559 983093	97940	154145	+++++ 0.700	0.0400 1.00	0.100 2.50	0.250	0.400
2,4-diamino-6-nitrotoluene	Lin2	+++++ 173173	14194 246270	26794 599341	61385	95979	+++++ 0.700	0.0400 1.00	0.100 2.50	0.250	0.400

Curve Type Legend:
Lin2 = Linear 1/conc^2

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200020.D
Lims ID: IC ADD 8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 21-Sep-2023 01:50:28 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 8
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub10

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:18 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.239	4.246	-0.007	983093	2.50	2.59	
2 2,4-diamino-6-nitrotoluene	1	4.879	4.866	0.013	599341	2.50	2.54	

Reagents:

8330_ADDs_00037 Amount Added: 125.00 Units: uL

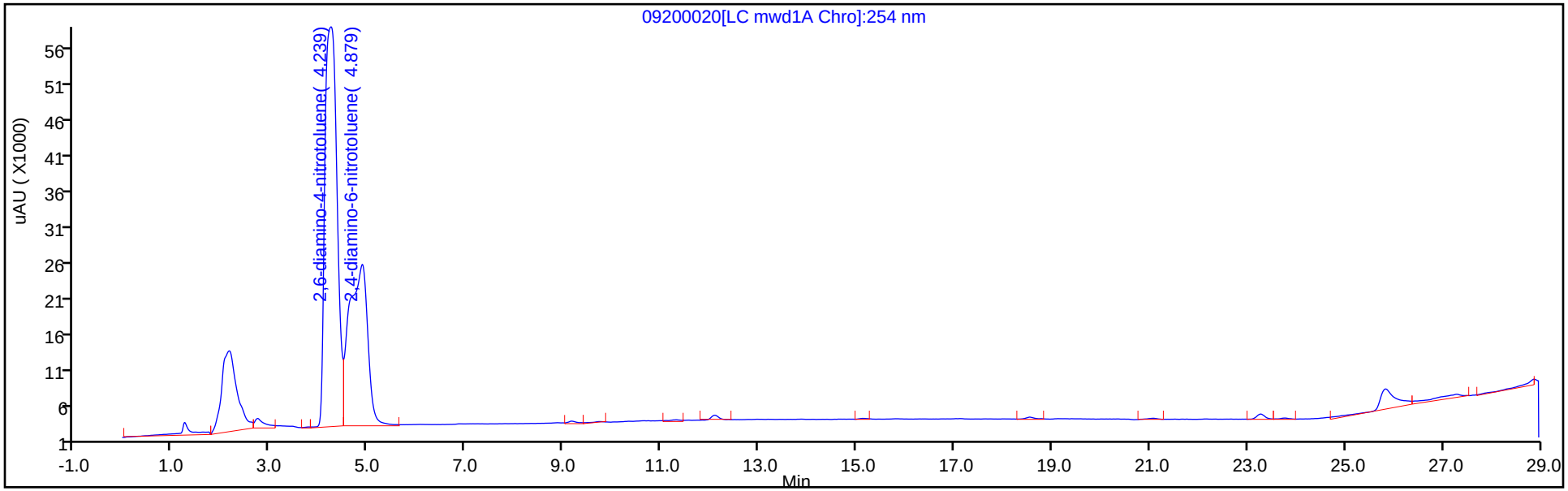
Report Date: 21-Sep-2023 16:09:18 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

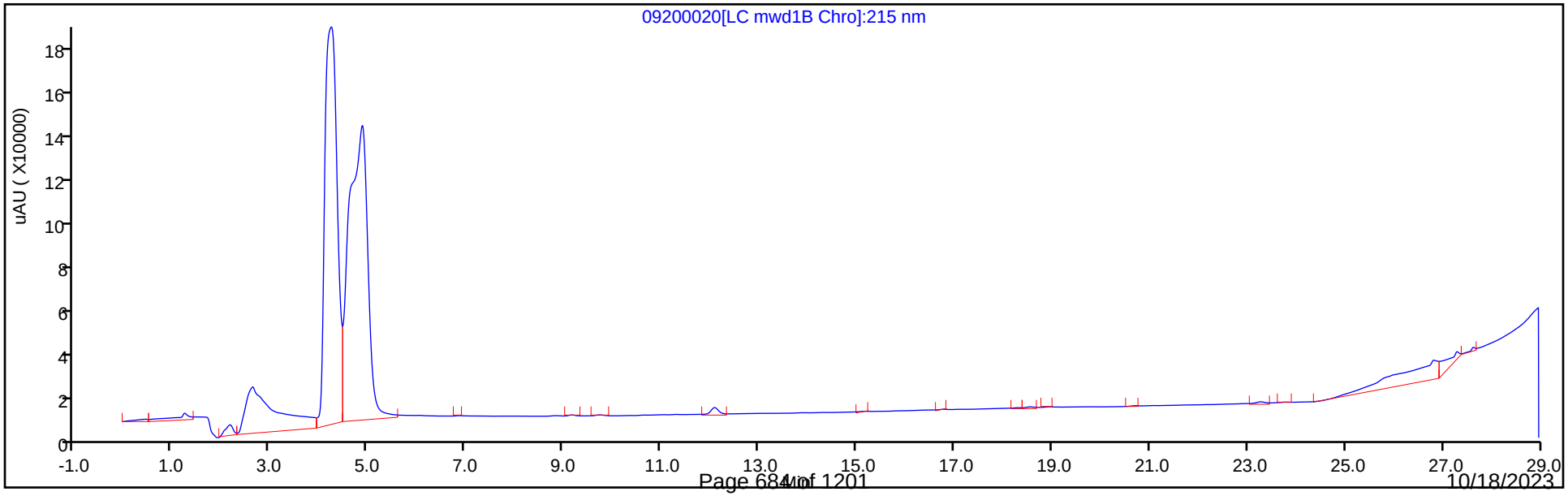
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200020.D

Injection Date:	21-Sep-2023 01:50:28	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 8			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200021.D				
Lims ID:	IC ADD 7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	21-Sep-2023 02:25:27	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 7				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub10				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Sep-2023 16:09:18	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1611				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.240	4.246	-0.006	389884	1.00	1.02	
2 2,4-diamino-6-nitrotoluene	1	4.866	4.866	0.000	246270	1.00	1.03	

Reagents:

8330_ADDs_00037 Amount Added: 50.00 Units: uL

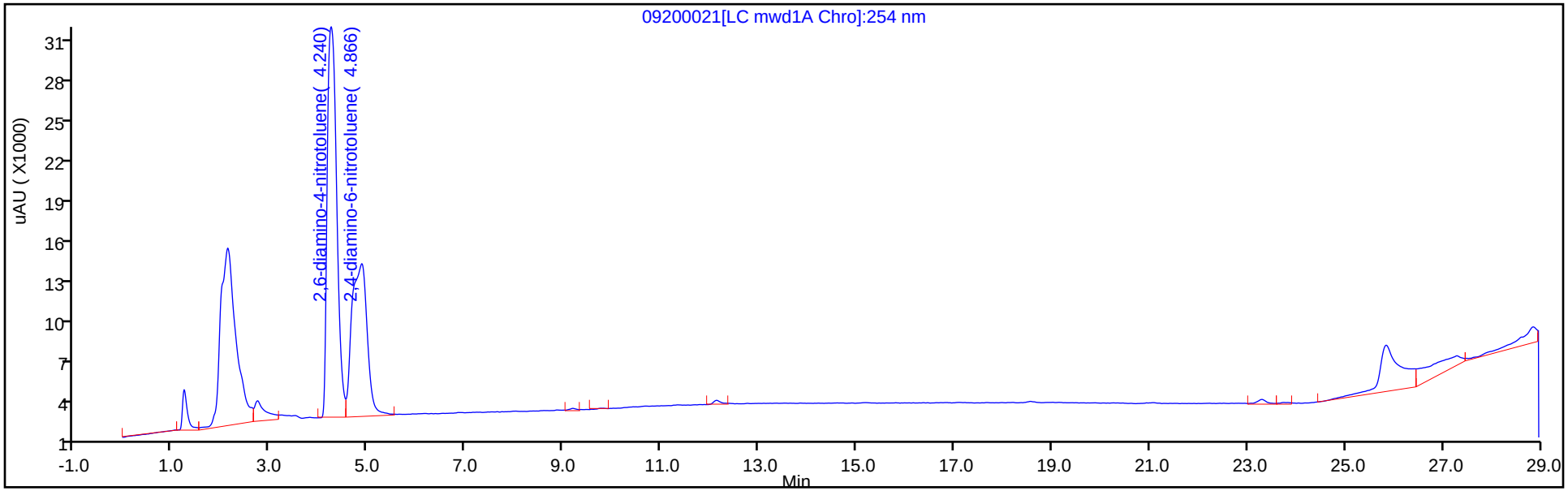
Report Date: 21-Sep-2023 16:09:19 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

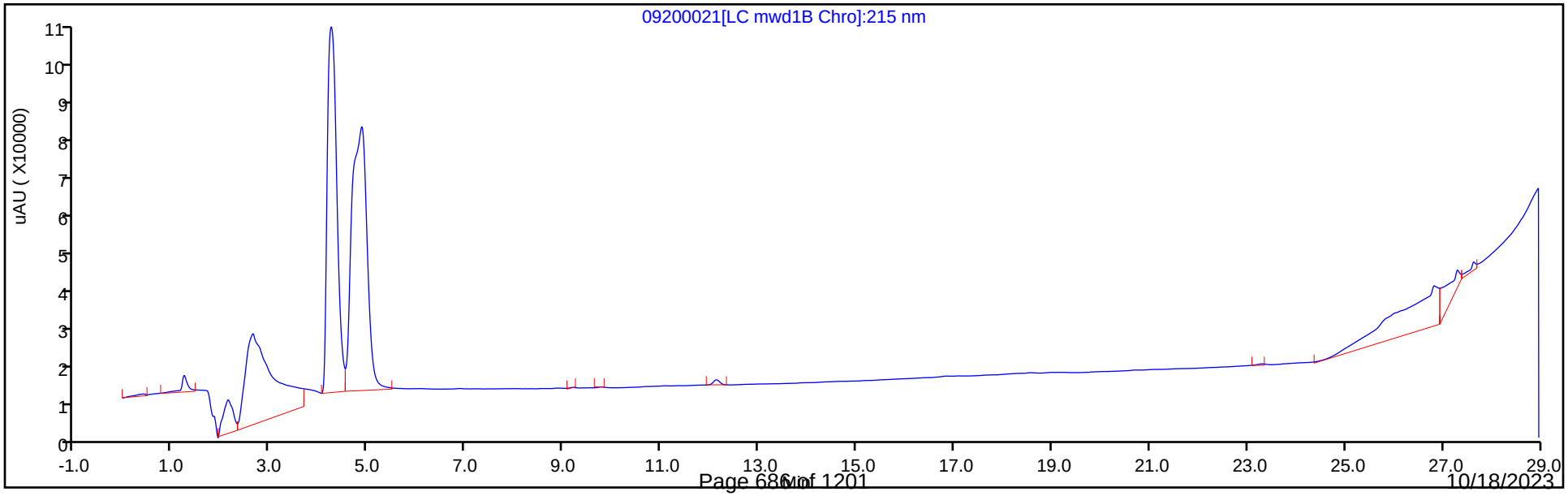
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200021.D

Injection Date:	21-Sep-2023 02:25:27	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 7			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200022.D
Lims ID: IC ADD 6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 21-Sep-2023 03:00:51 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 6
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub10

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:19 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.237	4.246	-0.009	275973	0.7000	0.7153	
2 2,4-diamino-6-nitrotoluene	1	4.864	4.866	-0.002	173173	0.7000	0.7207	

Reagents:

8330_ADDs_00037 Amount Added: 35.00 Units: uL

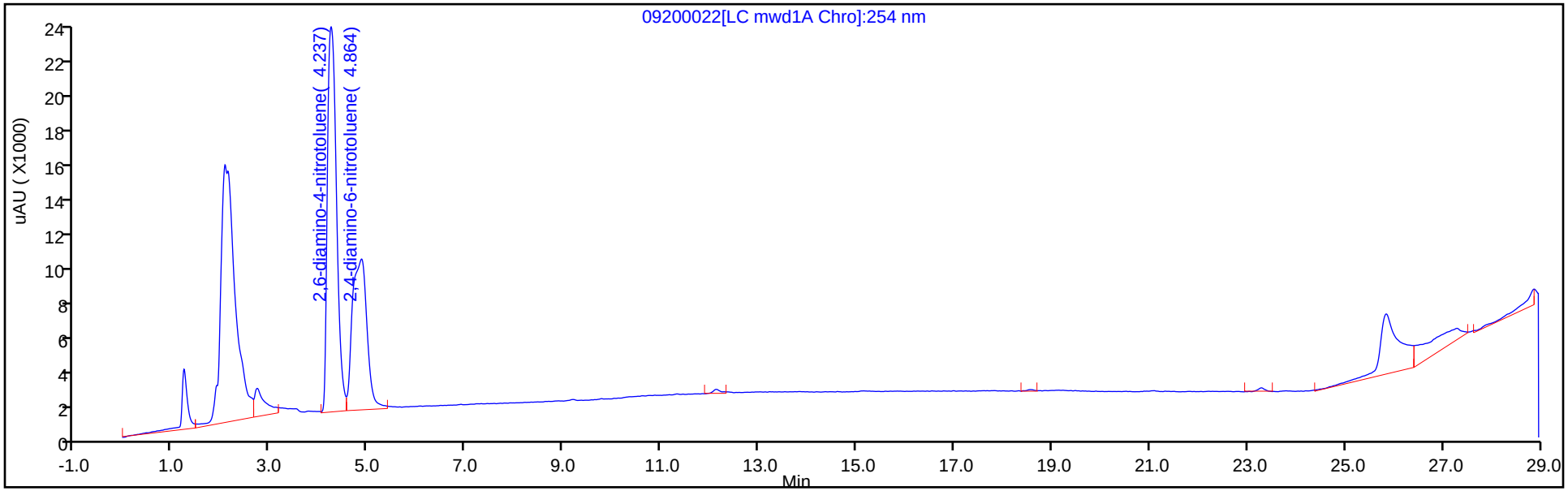
Report Date: 21-Sep-2023 16:09:19 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

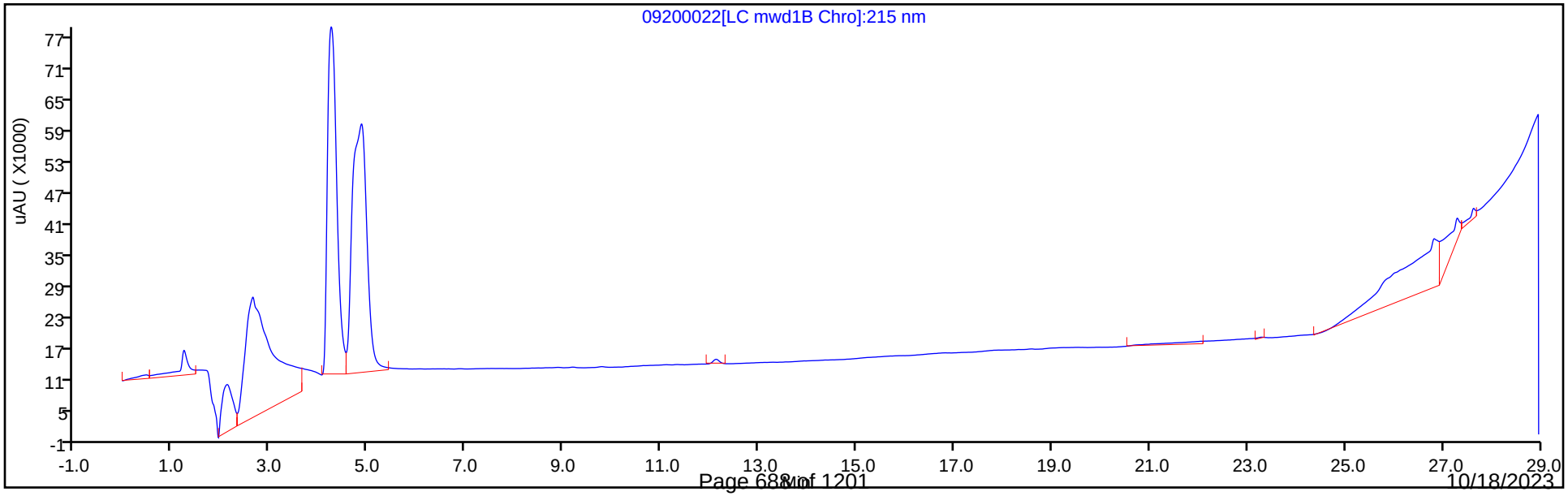
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200022.D

Injection Date:	21-Sep-2023 03:00:51	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 6			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200023.D
Lims ID: IC ADD 5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 21-Sep-2023 03:35:51 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 5
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub10

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:19 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.246	4.246	0.000	154145	0.4000	0.3926	
2 2,4-diamino-6-nitrotoluene	1	4.866	4.866	0.000	95979	0.4000	0.3906	

Reagents:

8330_ADDs_00037 Amount Added: 20.00 Units: uL

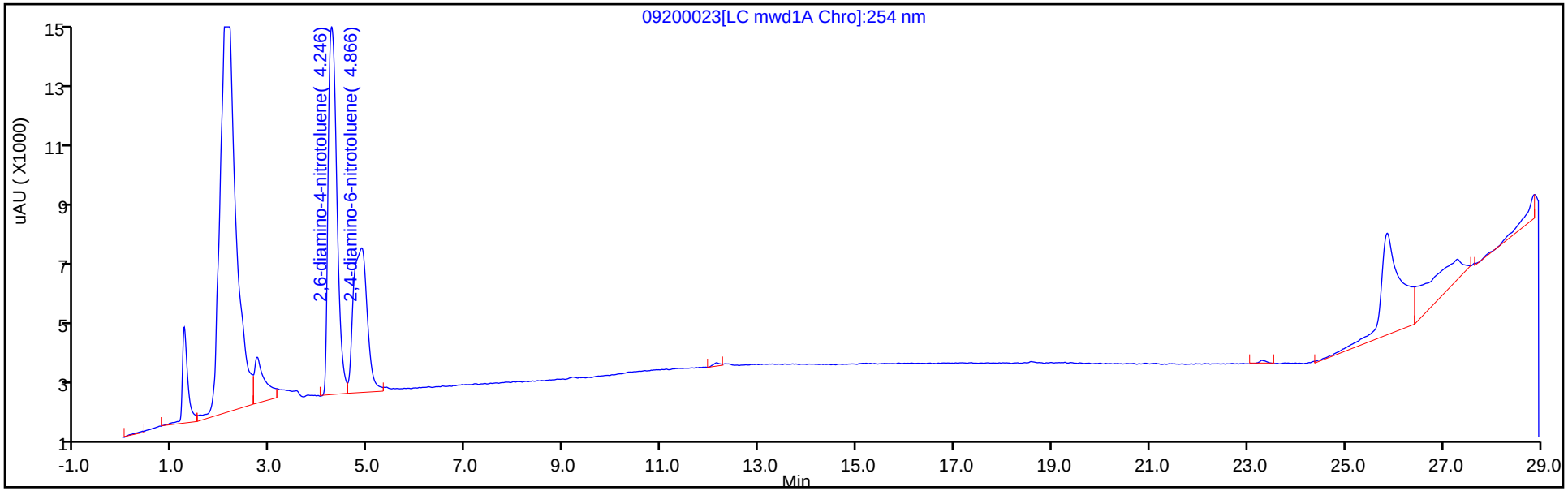
Report Date: 21-Sep-2023 16:09:19 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

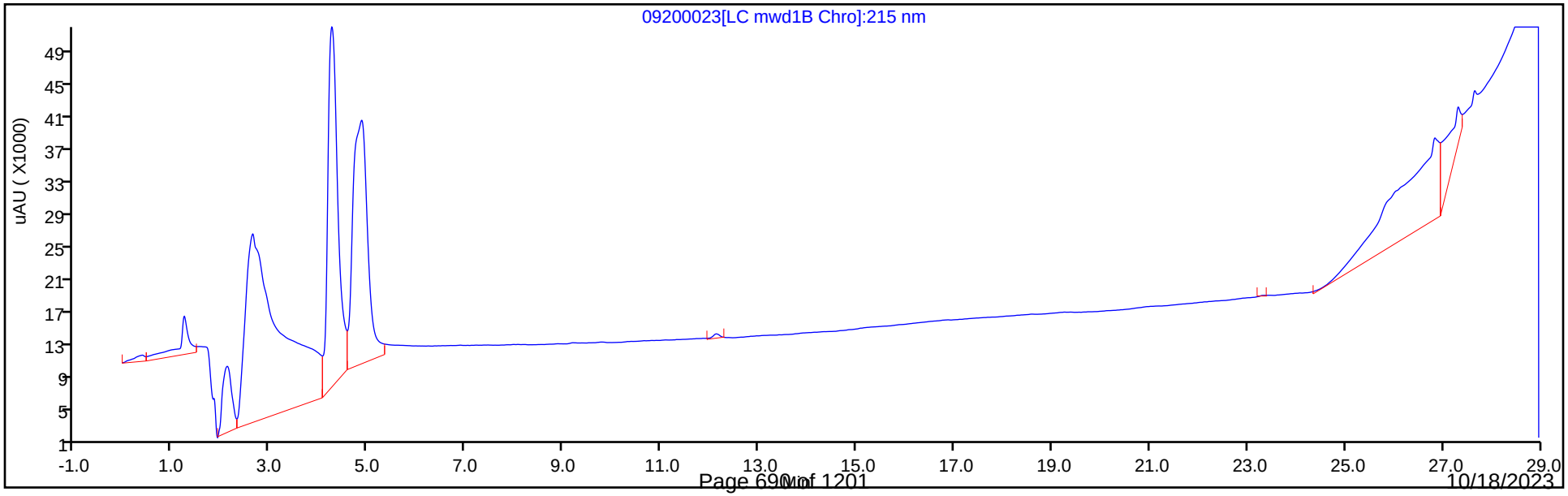
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200023.D

Injection Date:	21-Sep-2023 03:35:51	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 5			Worklist Smp#:	23
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200024.D				
Lims ID:	IC ADD 4				
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	21-Sep-2023 04:10:46	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 4				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub10				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Sep-2023 16:09:20	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1611				

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.245	4.246	-0.001	97940	0.2500	0.2437	
2 2,4-diamino-6-nitrotoluene	1	4.865	4.866	-0.001	61385	0.2500	0.2427	

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

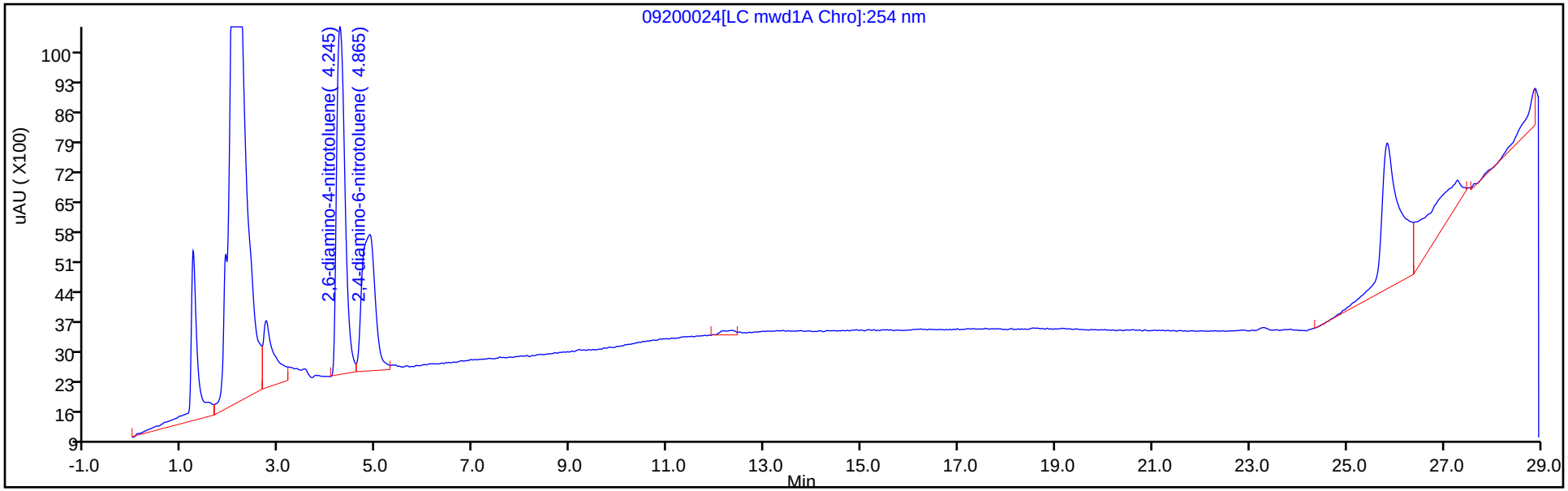
Report Date: 21-Sep-2023 16:09:20 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

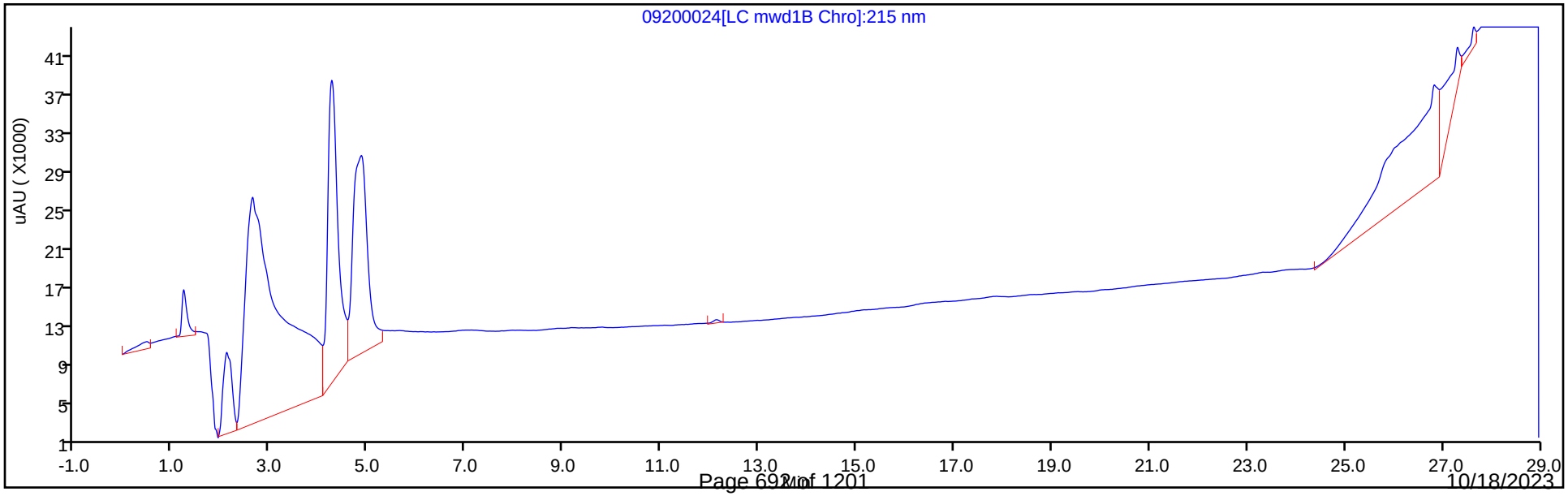
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200024.D

Injection Date:	21-Sep-2023 04:10:46	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 4			Worklist Smp#:	24
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200025.D
Lims ID: IC ADD 3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 21-Sep-2023 04:45:42 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 3
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub10

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:20 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.249	4.246	0.003	41559	0.1000	0.0943	
2 2,4-diamino-6-nitrotoluene	1	4.869	4.866	0.003	26794	0.1000	0.0948	

Reagents:

8330_ADDs_00037 Amount Added: 5.00 Units: uL

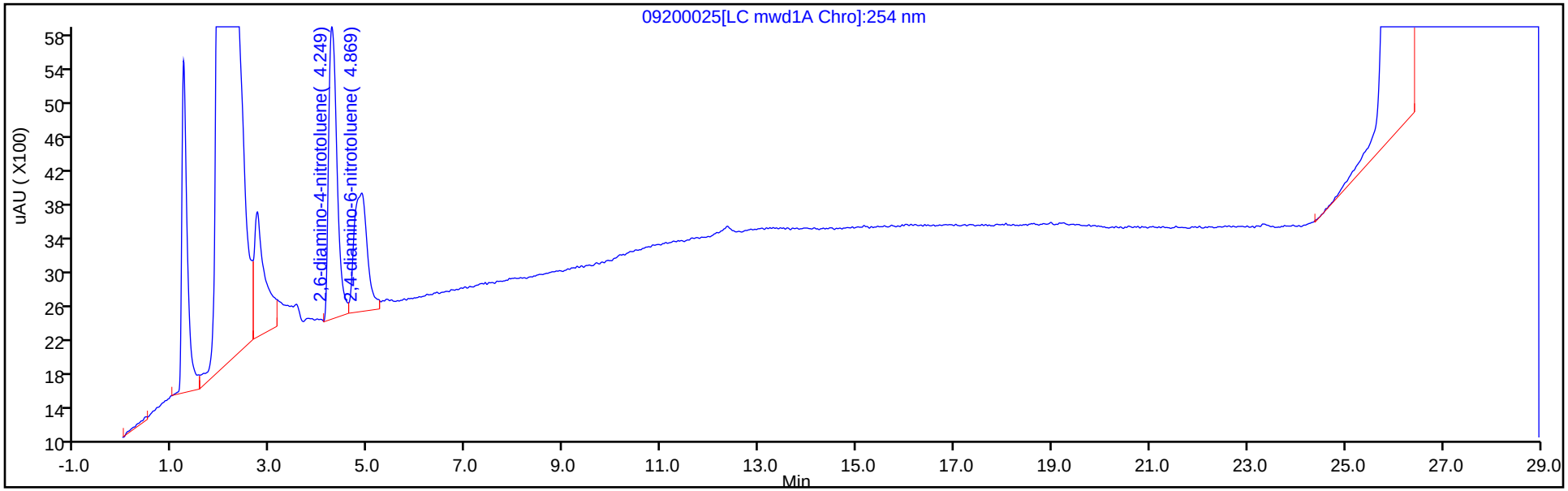
Report Date: 21-Sep-2023 16:09:20 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

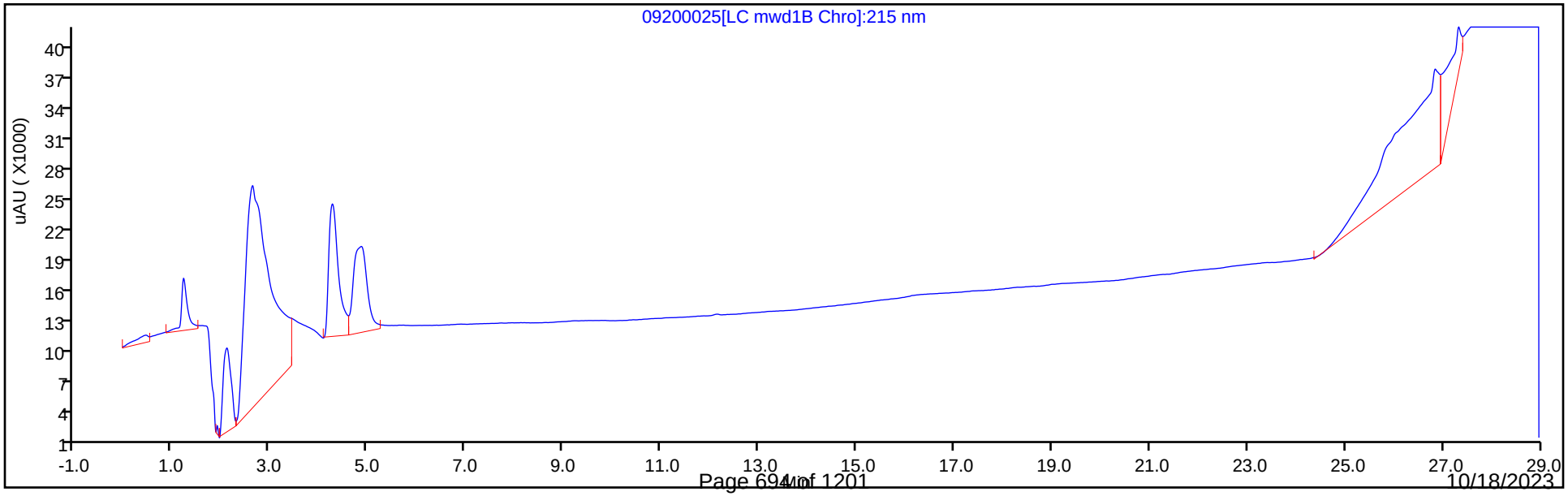
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200025.D

Injection Date:	21-Sep-2023 04:45:42	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 3			Worklist Smp#:	25
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200026.D
Lims ID: IC ADD 2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 21-Sep-2023 05:20:38 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: IC ADD 2
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub10

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:09:21 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.262	4.246	0.016	21436	0.0400	0.0410	
2 2,4-diamino-6-nitrotoluene	1	4.855	4.866	-0.011	14194	0.0400	0.0410	

Reagents:

8330_ADDs_00037 Amount Added: 2.00 Units: uL

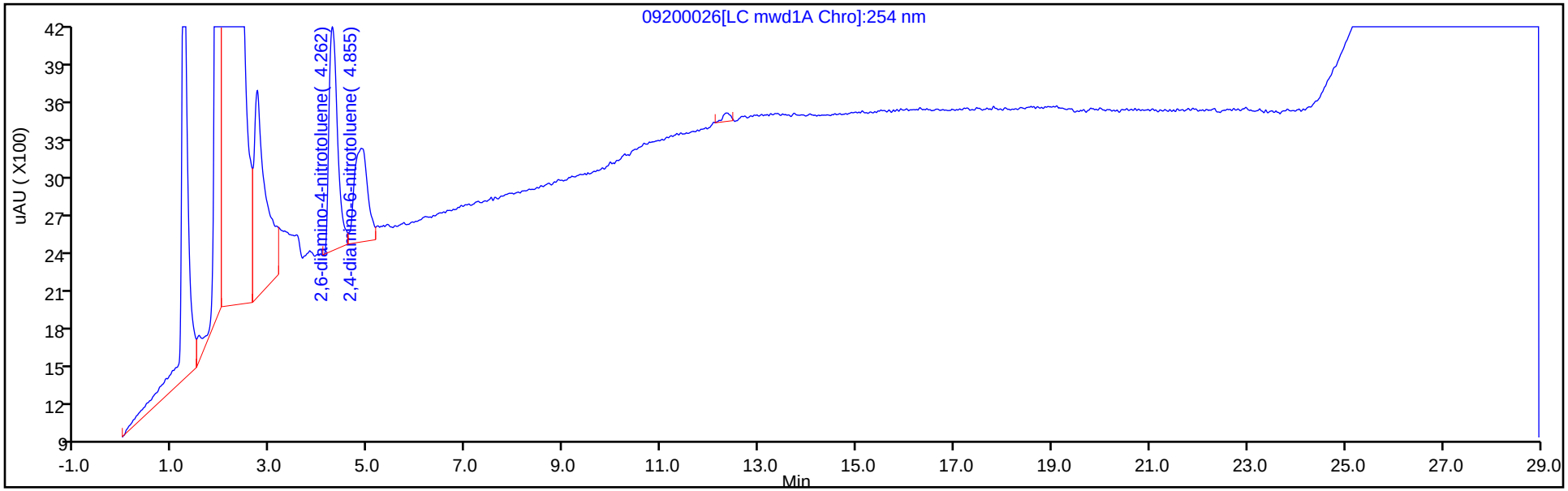
Report Date: 21-Sep-2023 16:09:21 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

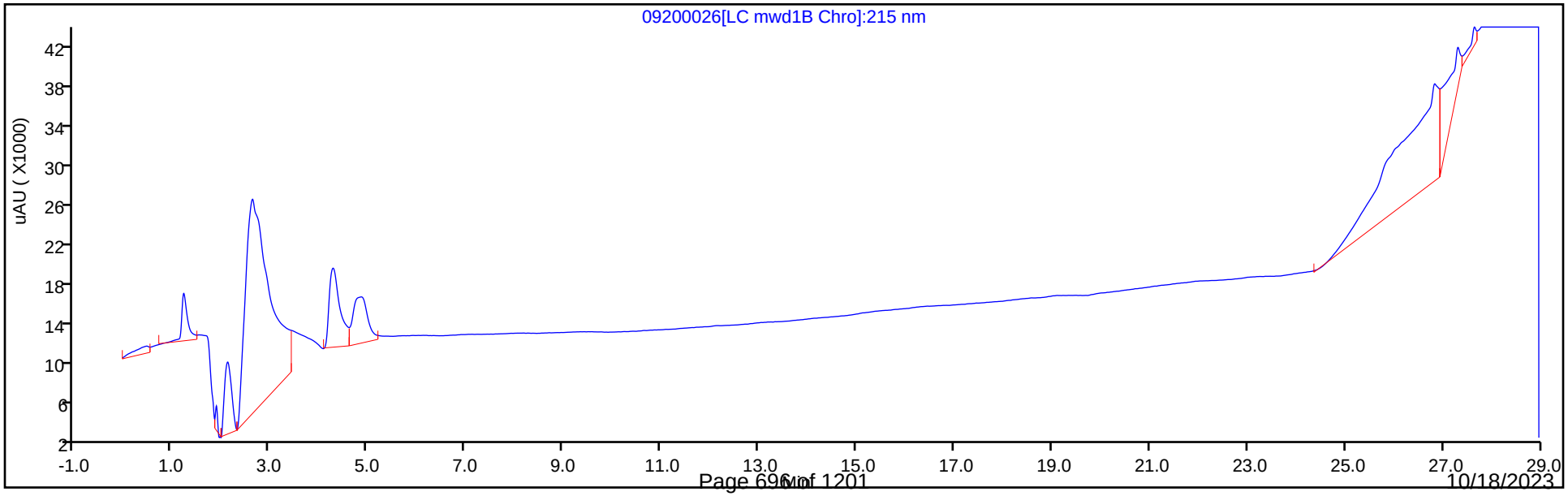
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200026.D

Injection Date:	21-Sep-2023 05:20:38	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 2			Worklist Smp#:	26
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Lims ID:	IC ADD 1				
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	21-Sep-2023 05:55:36	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	IC ADD 1				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X5		
Sublist:	chrom-8330_X5_Luna*sub10				
Method:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m				
Limit Group:	GCSV - 8330				
Last Update:	21-Sep-2023 16:09:21	Calib Date:	21-Sep-2023 05:55:36		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D				
Column 1 :	Luna-Phenyl hexyl (4.60 mm)		Det: LC mwd1A, 254 nm		
Process Host:	CTX1611				
First Level Reviewer: LV5D		Date:	21-Sep-2023 16:08:33		

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.262	4.246	0.016	9614	0.0200	0.009724	
2 2,4-diamino-6-nitrotoluene	1	4.855	4.866	-0.011	6373	0.0200	0.007536	

QC Flag Legend

Processing Flags

Reagents:

8330_ADDs_00037 Amount Added: 1.00 Units: uL

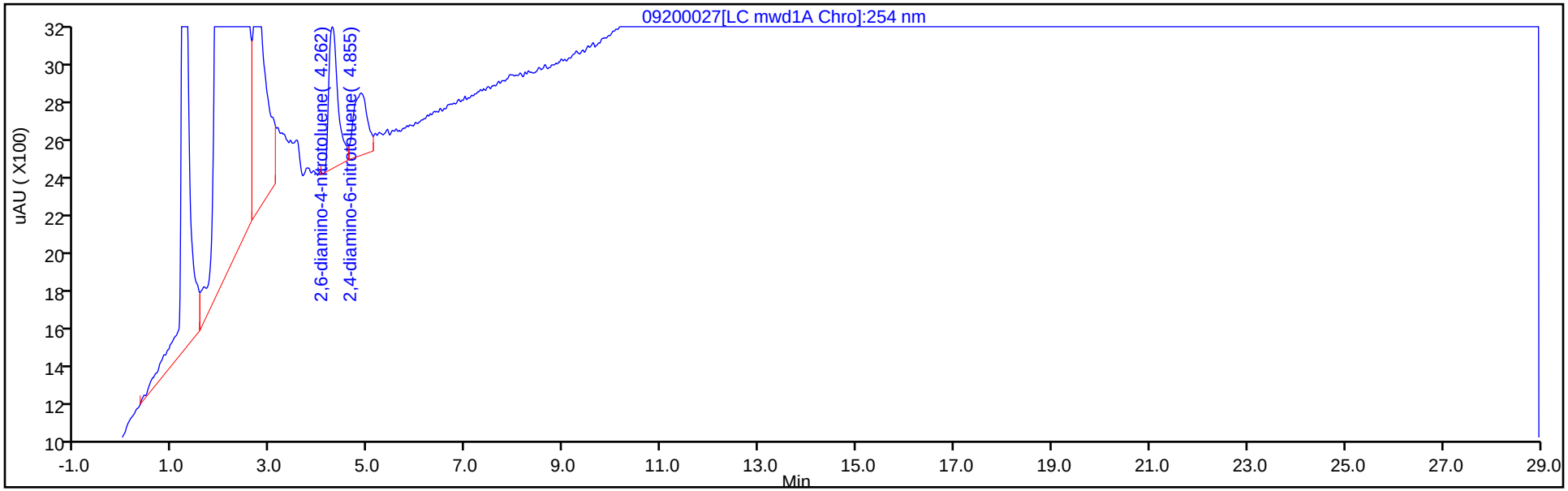
Report Date: 21-Sep-2023 16:09:21 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

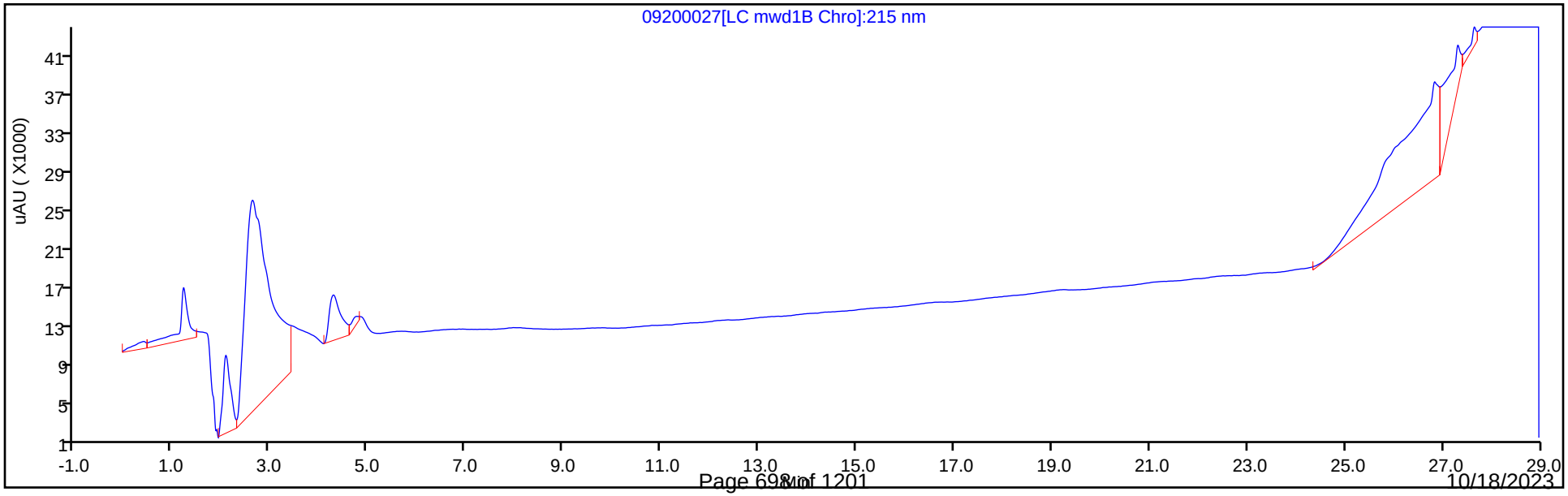
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Injection Date:	21-Sep-2023 05:55:36	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	IC ADD 1			Worklist Smp#:	27
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Calibration / 2,6-diamino-4-nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

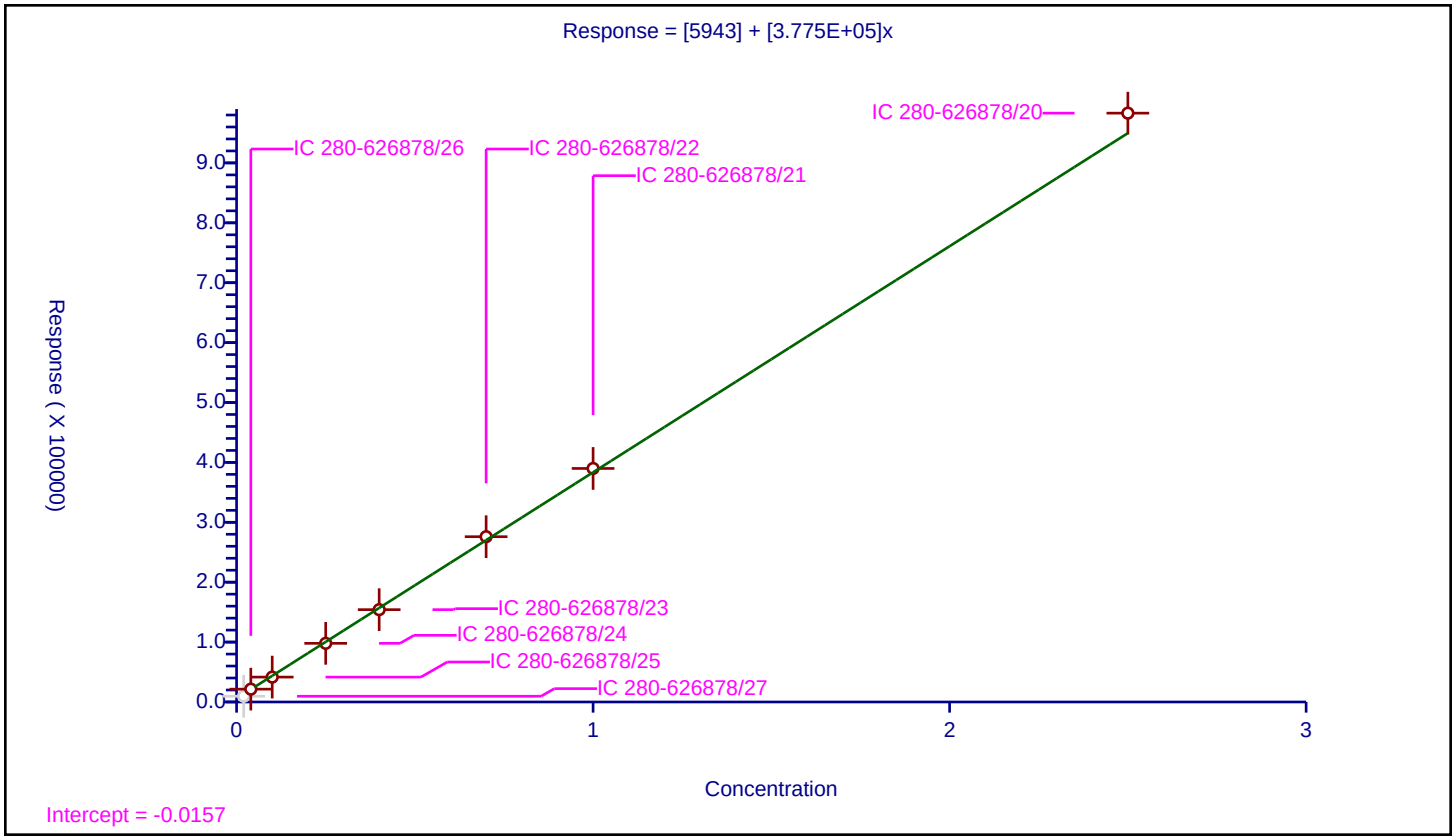
Curve Coefficients

Intercept:	5943
Slope:	3.775E+05

Error Coefficients

Standard Error:	15500
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-626878/27	0.02	9614.0			480700.0	N
2	IC 280-626878/26	0.04	21436.0			535900.0	Y
3	IC 280-626878/25	0.1	41559.0			415590.0	Y
4	IC 280-626878/24	0.25	97940.0			391760.0	Y
5	IC 280-626878/23	0.4	154145.0			385362.5	Y
6	IC 280-626878/22	0.7	275973.0			394247.142857	Y
7	IC 280-626878/21	1.0	389884.0			389884.0	Y
8	IC 280-626878/20	2.5	983093.0			393237.2	Y



10/18/2023
8:21 PM

Calibration / 2,4-diamino-6-nitrotoluene

Curve Type:	Linear
Weighting:	Conc_Sq
Origin:	None
Dependency:	Response
Calib Mode:	ESTD
Response Base:	AREA
RF Rounding:	0

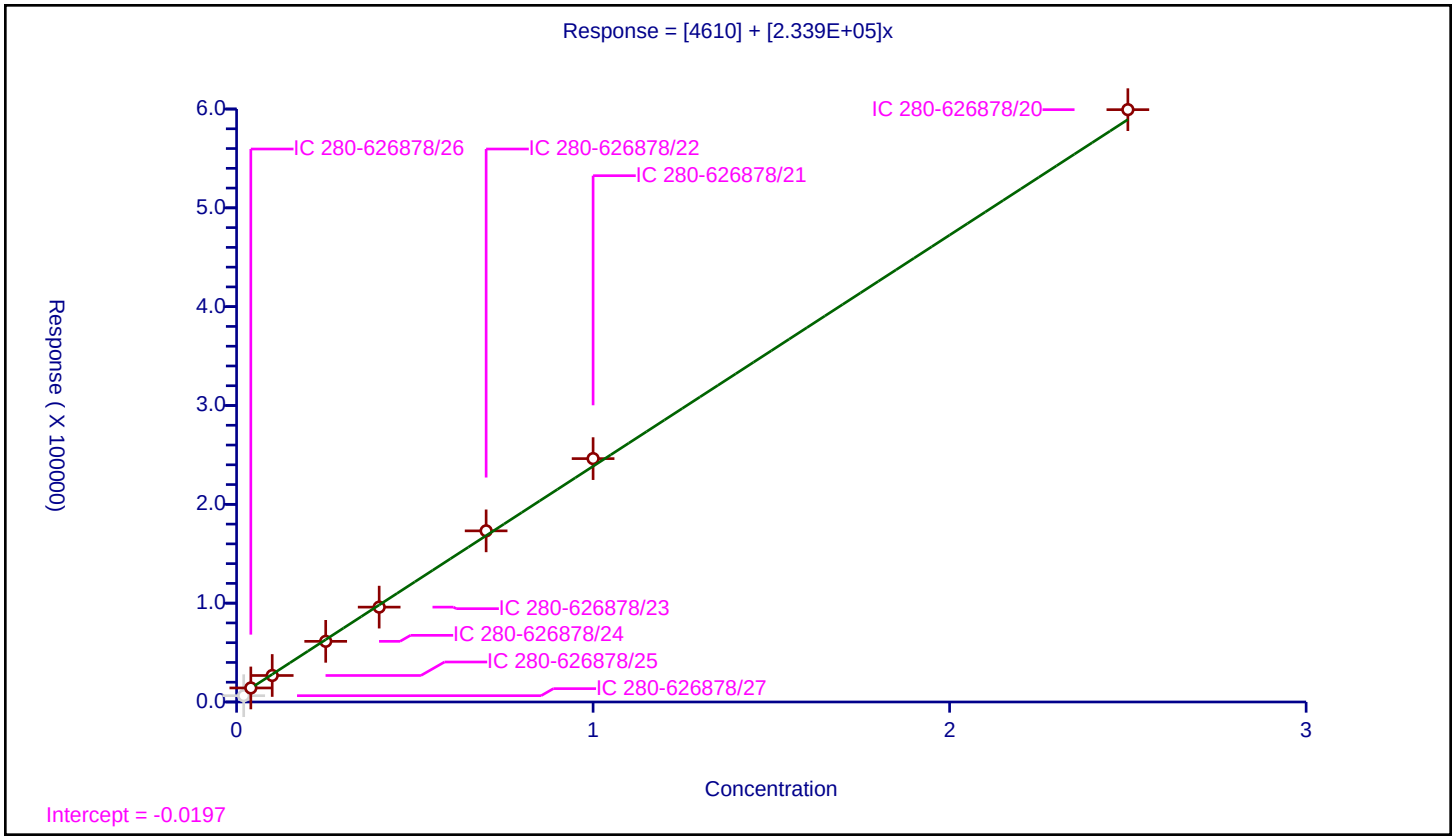
Curve Coefficients

Intercept:	4610
Slope:	2.339E+05

Error Coefficients

Standard Error:	6200
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 280-626878/27	0.02	6373.0			318650.0	N
2	IC 280-626878/26	0.04	14194.0			354850.0	Y
3	IC 280-626878/25	0.1	26794.0			267940.0	Y
4	IC 280-626878/24	0.25	61385.0			245540.0	Y
5	IC 280-626878/23	0.4	95979.0			239947.5	Y
6	IC 280-626878/22	0.7	173173.0			247390.0	Y
7	IC 280-626878/21	1.0	246270.0			246270.0	Y
8	IC 280-626878/20	2.5	599341.0			239736.4	Y



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: ICV 280-617295/20 Calibration Date: 06/23/2023 21:20

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 06230020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	199627		499	502	-0.6	20.0
HMX	Ave	94255	83092		441	500	-11.8	20.0
DNX	Ave	144493	149728		519	501	3.6	20.0
MNX	Ave	138689	138972		585	584	0.2	20.0
RDX	Ave	110493	105934		479	500	-4.1	20.0
Picric acid	Ave	77863	85034		546	500	9.2	20.0
1,3,5-Trinitrobenzene	Ave	216079	236762		548	500	9.6	20.0
1,3-Dinitrobenzene	Ave	293347	307830		525	500	4.9	20.0
Nitrobenzene	Ave	192696	199368		517	500	3.5	20.0
3,5-Dinitroaniline	Lin2		225728		502	500	0.4	20.0
Tetryl	Ave	167257	189110		565	500	13.1	20.0
Nitroglycerin	Ave	64651	68558		5300	5000	6.0	20.0
2,4,6-Trinitrotoluene	Ave	204902	210316		513	500	2.6	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	156178		522	500	4.4	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	201626		520	500	4.1	20.0
2,6-Dinitrotoluene	Ave	142638	147100		516	500	3.1	20.0
2,4-Dinitrotoluene	Ave	295706	300582		508	500	1.6	20.0
2-Nitrotoluene	Ave	126123	126932		503	500	0.6	20.0
4-Nitrotoluene	Ave	110088	109714		498	500	-0.3	20.0
3-Nitrotoluene	Lin2		139916		512	500	2.4	20.0
PETN	Ave	72018	77398		5370	5000	7.5	20.0
1,2-Dinitrobenzene	Ave	123911	127840		516	500	3.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: ICV 280-617295/20 Calibration Date: 06/23/2023 21:20

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 06230020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.47	6.37	6.57
HMX	6.60	6.45	6.75
DNX	6.80	6.70	6.90
MNX	7.23	7.09	7.39
RDX	7.63	7.47	7.77
Picric acid	8.01	7.88	8.18
1,3,5-Trinitrobenzene	8.71	8.56	8.86
1,3-Dinitrobenzene	9.33	9.19	9.49
Nitrobenzene	9.69	9.56	9.86
3,5-Dinitroaniline	9.93	9.79	10.09
Tetryl	10.07	9.93	10.23
Nitroglycerin	10.52	10.39	10.69
2,4,6-Trinitrotoluene	10.96	10.88	11.08
4-Amino-2,6-dinitrotoluene	11.15	11.07	11.27
2-Amino-4,6-dinitrotoluene	11.40	11.32	11.52
2,6-Dinitrotoluene	11.56	11.48	11.68
2,4-Dinitrotoluene	11.73	11.64	11.84
2-Nitrotoluene	12.55	12.42	12.72
4-Nitrotoluene	12.97	12.83	13.13
3-Nitrotoluene	13.54	13.41	13.71
PETN	14.71	14.57	14.87
1,2-Dinitrobenzene	8.58	8.44	8.74

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230020.D
Lims ID: ICV INT/DMT
Client ID:
Sample Type: ICV
Inject. Date: 23-Jun-2023 21:20:20 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT/DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:56:19 Calib Date: 23-Jun-2023 20:57:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230019.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 23-Jun-2023 21:43:56

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.471	6.470	0.001	100113	0.5015	0.4987	M
4 HMX	1	6.598	6.597	0.001	41546	0.5000	0.4408	M
6 DNX	1	6.798	6.803	-0.005	74939	0.5005	0.5186	M
7 MNX	1	7.231	7.237	-0.006	81090	0.5835	0.5847	
8 RDX	1	7.625	7.623	0.002	52967	0.5000	0.4794	
9 2,4,6-Trinitrophenol	1	8.005	8.030	-0.025	42517	0.5000	0.5460	
$ 10 1,2-Dinitrobenzene	1	8.578	8.590	-0.012	63920	0.5000	0.5159	
11 1,3,5-Trinitrobenzene	1	8.705	8.710	-0.005	118381	0.5000	0.5479	
12 1,3-Dinitrobenzene	1	9.325	9.336	-0.011	153915	0.5000	0.5247	
13 Nitrobenzene	1	9.691	9.710	-0.019	99684	0.5000	0.5173	
14 3,5-Dinitroaniline	1	9.925	9.943	-0.018	112864	0.5000	0.5018	
15 Tetryl	1	10.065	10.083	-0.018	94555	0.5000	0.5653	
16 Nitroglycerin	2	10.518	10.536	-0.018	342788	5.00	5.30	
17 2,4,6-Trinitrotoluene	1	10.958	10.976	-0.018	105158	0.5000	0.5132	
18 4-Amino-2,6-dinitrotoluene	1	11.151	11.170	-0.019	78089	0.5000	0.5221	
19 2-Amino-4,6-dinitrotoluene	1	11.398	11.423	-0.025	100813	0.5000	0.5204	
20 2,6-Dinitrotoluene	1	11.558	11.576	-0.018	73550	0.5000	0.5156	
21 2,4-Dinitrotoluene	1	11.725	11.743	-0.018	150291	0.5000	0.5082	
22 o-Nitrotoluene	1	12.545	12.570	-0.025	63466	0.5000	0.5032	
23 p-Nitrotoluene	1	12.965	12.983	-0.018	54857	0.5000	0.4983	
24 m-Nitrotoluene	1	13.538	13.556	-0.018	69958	0.5000	0.5121	
25 PETN	2	14.711	14.723	-0.012	386990	5.00	5.37	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00146	Amount Added:	50.00	Units: uL
8330 LCS_00127	Amount Added:	50.00	Units: uL
8330_OP_DMT_00021	Amount Added:	50.00	Units: uL

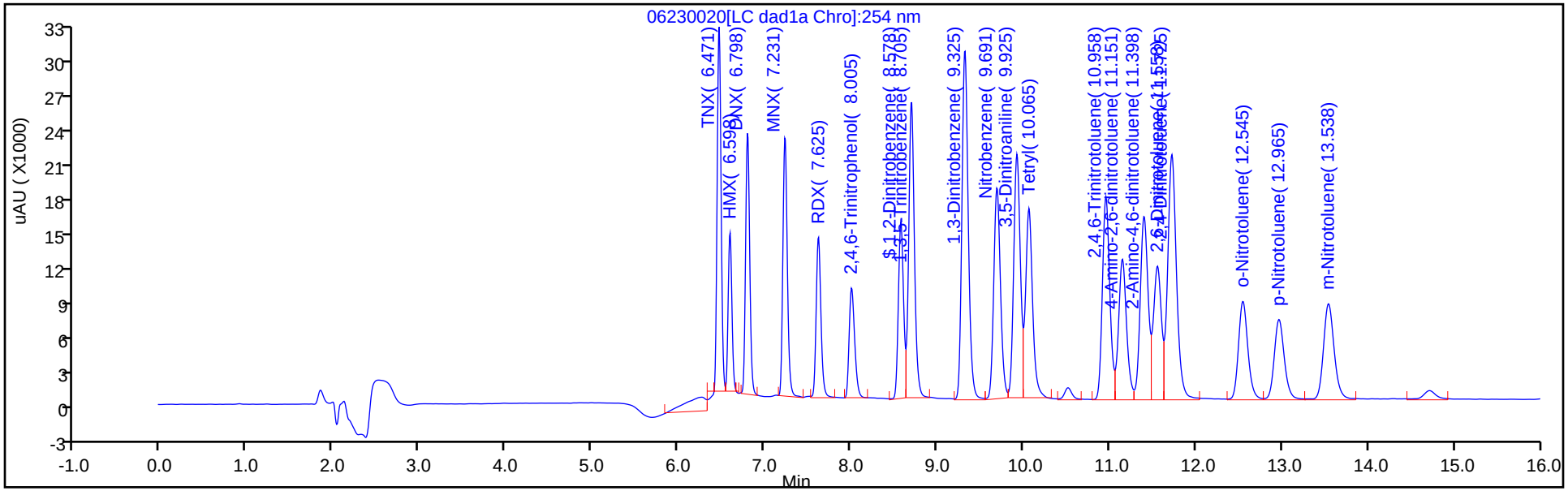
Report Date: 24-Jun-2023 12:56:19 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

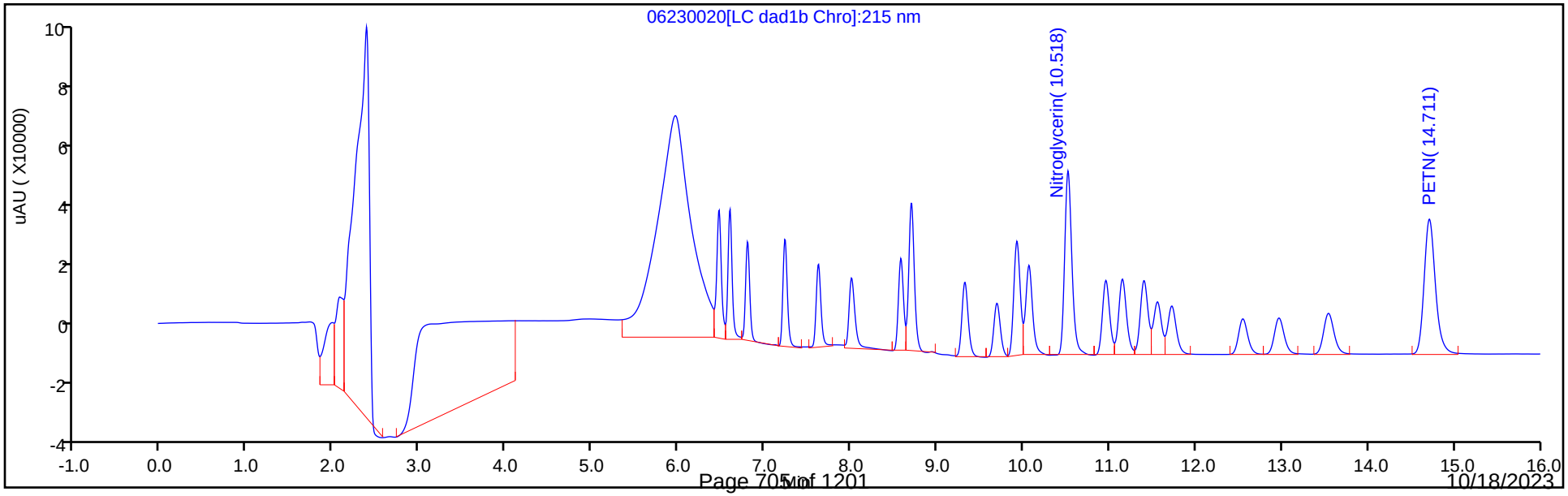
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230020.d

Injection Date:	23-Jun-2023 21:20:20	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	ICV INT/DMT			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

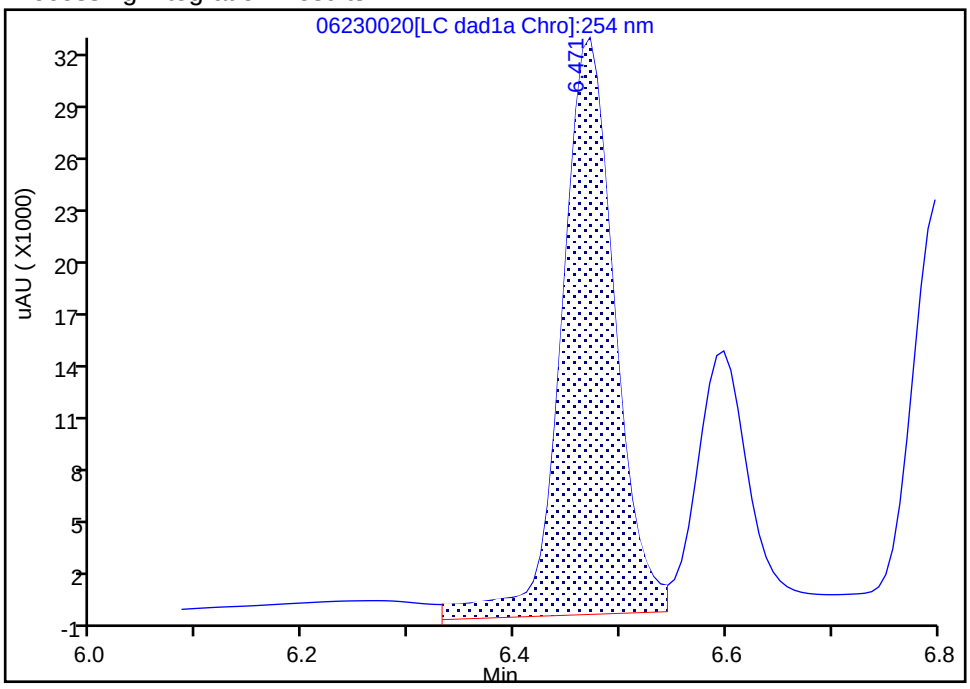
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230020.d				
Injection Date:	23-Jun-2023 21:20:20	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

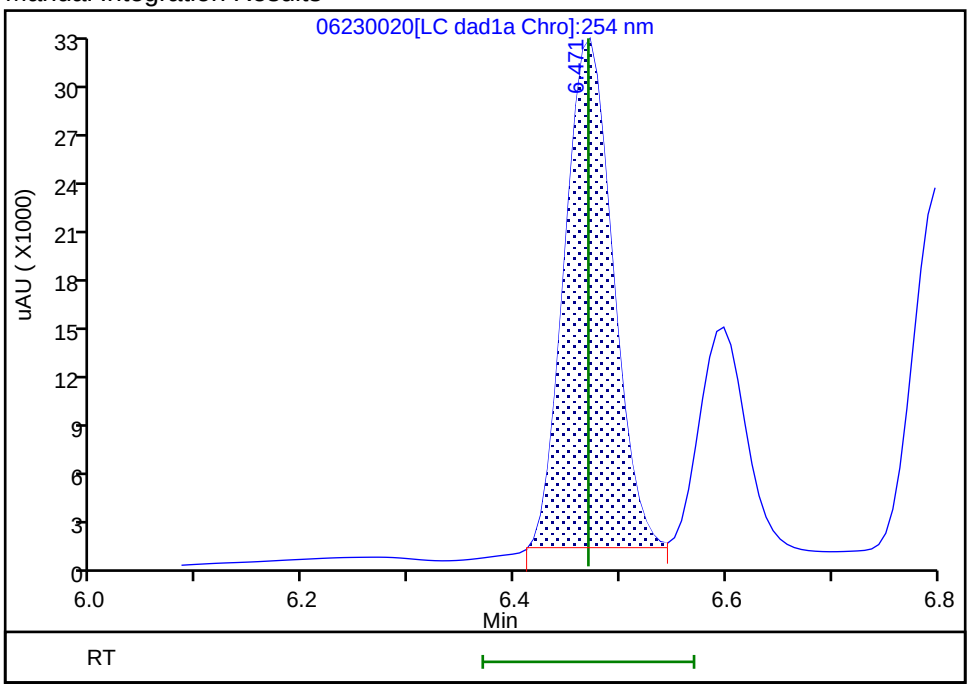
Processing Integration Results

RT: 6.47
Area: 115764
Amount: 0.576626
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 100113
Amount: 0.498668
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:43:50 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

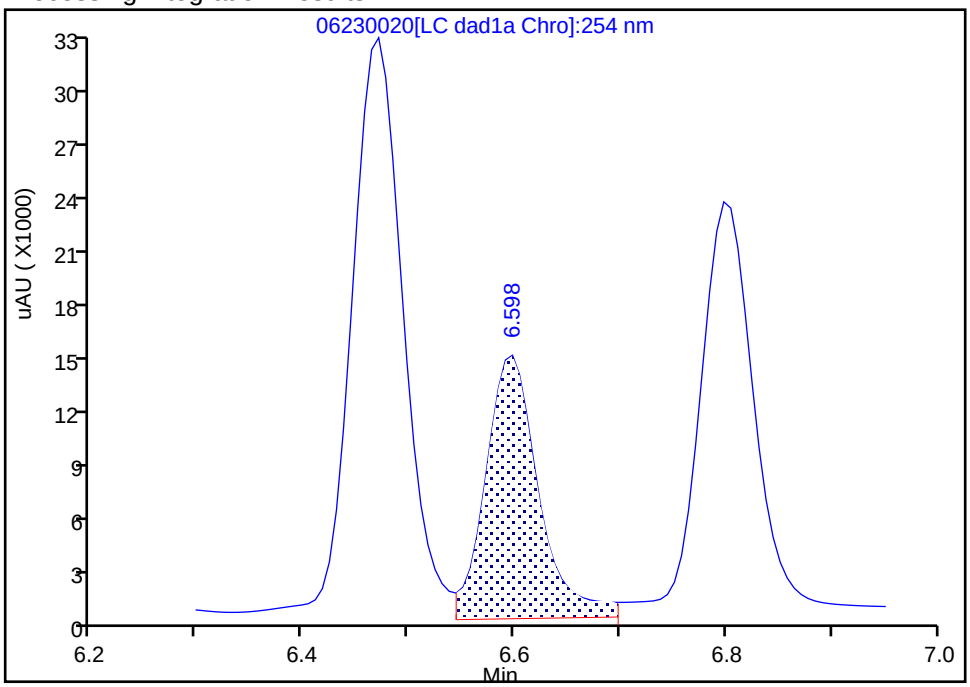
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230020.d				
Injection Date:	23-Jun-2023 21:20:20	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

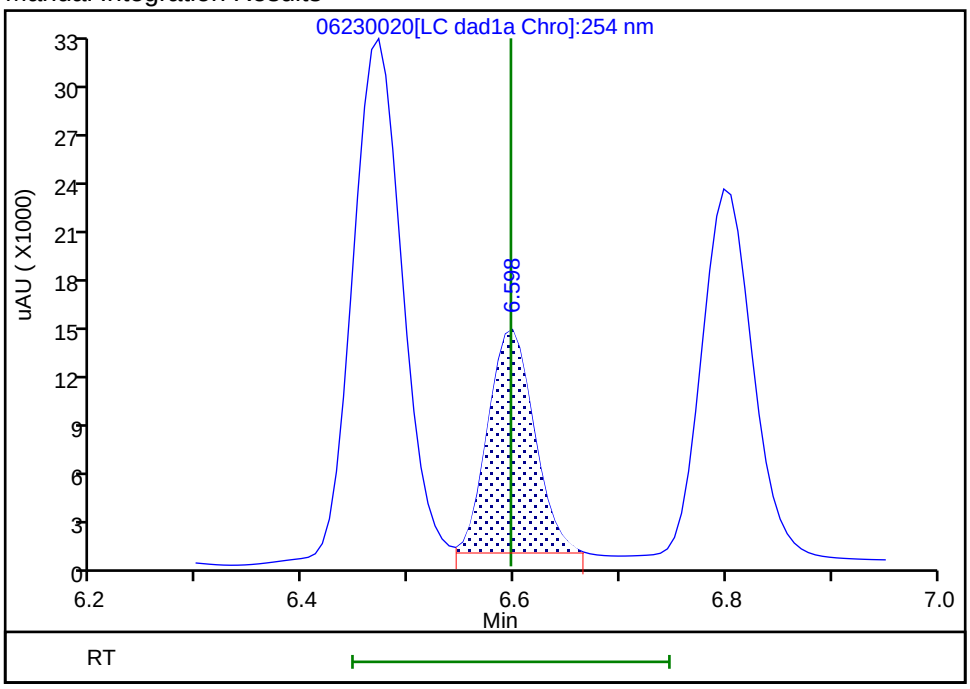
Processing Integration Results

RT: 6.60
Area: 51262
Amount: 0.543863
Amount Units: ug/mL



Manual Integration Results

RT: 6.60
Area: 41546
Amount: 0.440781
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:43:51 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

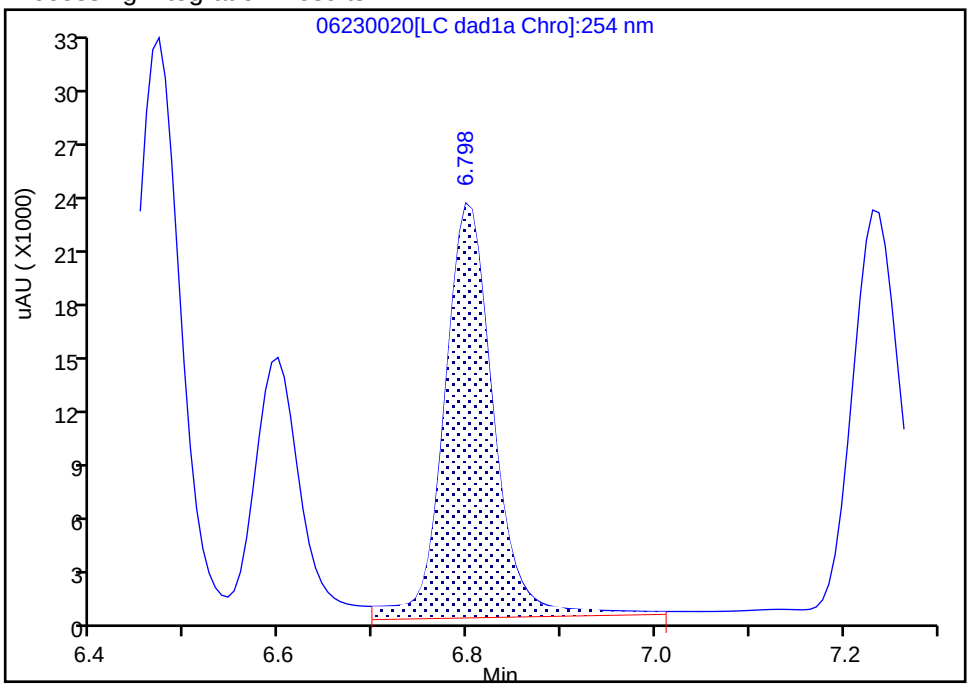
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230020.d				
Injection Date:	23-Jun-2023 21:20:20	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV INT/DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

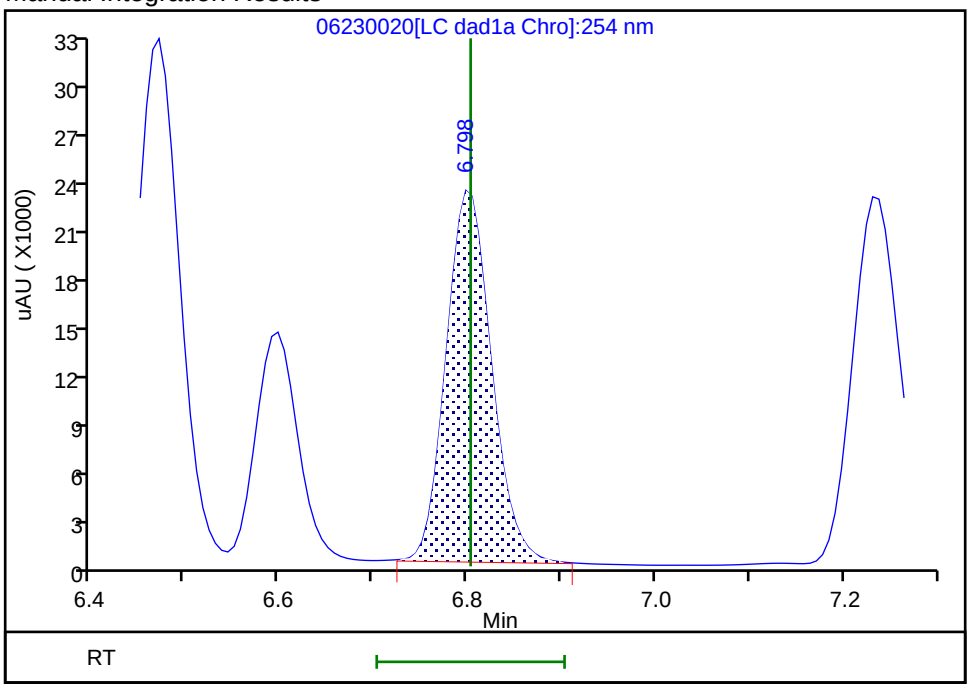
Processing Integration Results

RT: 6.80
Area: 84885
Amount: 0.587469
Amount Units: ug/mL



Manual Integration Results

RT: 6.80
Area: 74939
Amount: 0.518635
Amount Units: ug/mL



Reviewer: LV5D, 23-Jun-2023 21:43:54 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: ICV 280-617295/29 Calibration Date: 06/24/2023 00:46

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 06230029.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	222918		494	500	-1.2	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	140752		491	500	-1.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: ICV 280-617295/29 Calibration Date: 06/24/2023 00:46

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 06230029.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.47	6.33	6.63
2,4-diamino-6-nitrotoluene	6.66	6.52	6.82

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230029.D
Lims ID: ICV ADD
Client ID:
Sample Type: ICV
Inject. Date: 24-Jun-2023 00:46:42 ALS Bottle#: 29 Worklist Smp#: 29
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 24-Jun-2023 12:55:55 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1681

First Level Reviewer: LV5D Date: 24-Jun-2023 10:43:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.469	6.475	-0.006	111459	0.5000	0.4941	M
5 2,4-diamino-6-nitrotoluene	1	6.663	6.669	-0.006	70376	0.5000	0.4910	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330DiaminLCS_00058 Amount Added: 50.00 Units: uL

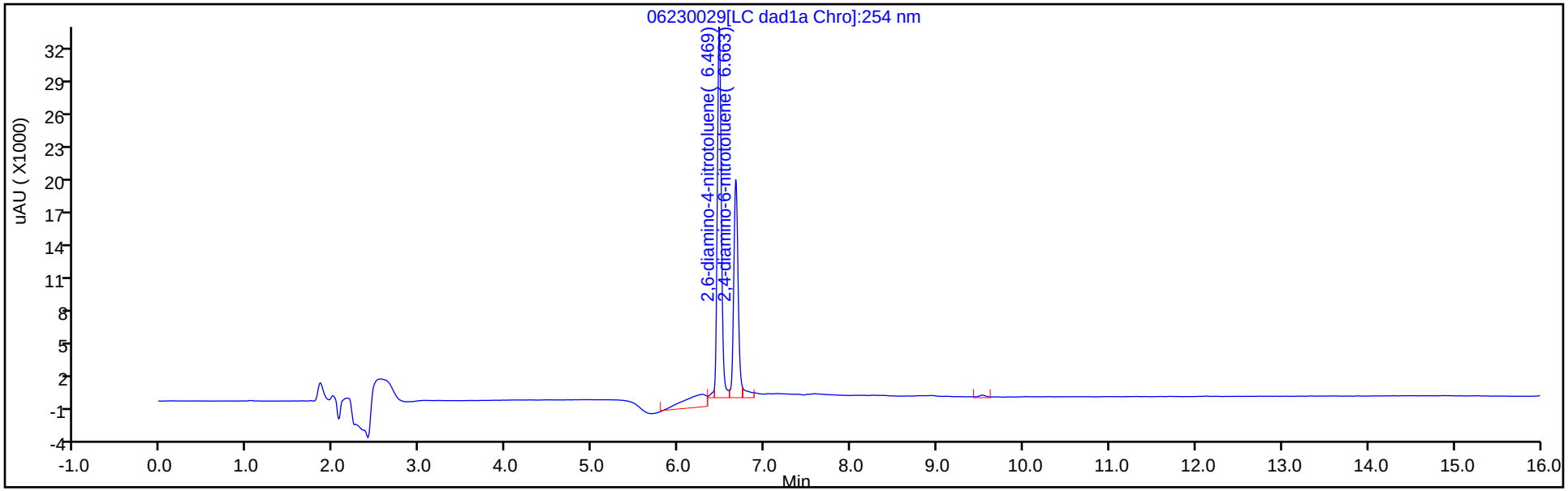
Report Date: 24-Jun-2023 12:56:06 Chrom Revision: 2.3 05-Jun-2023 19:02:10

Eurofins Denver

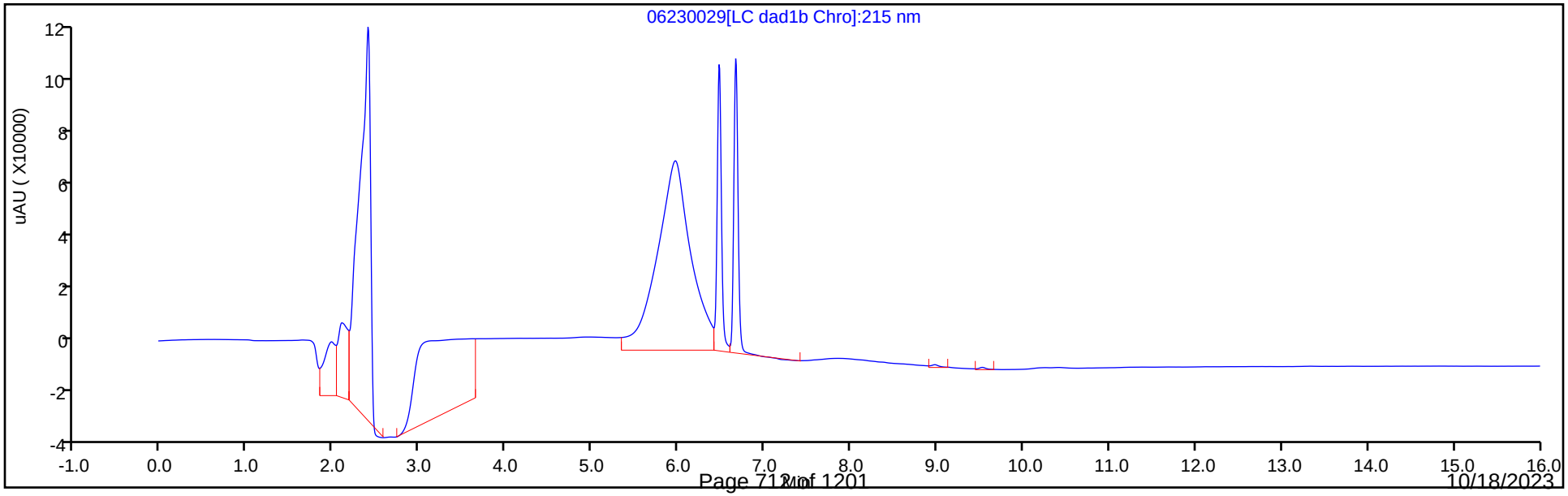
Data File: \\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230029.d

Injection Date:	24-Jun-2023 00:46:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	ICV ADD			Worklist Smp#:	29
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

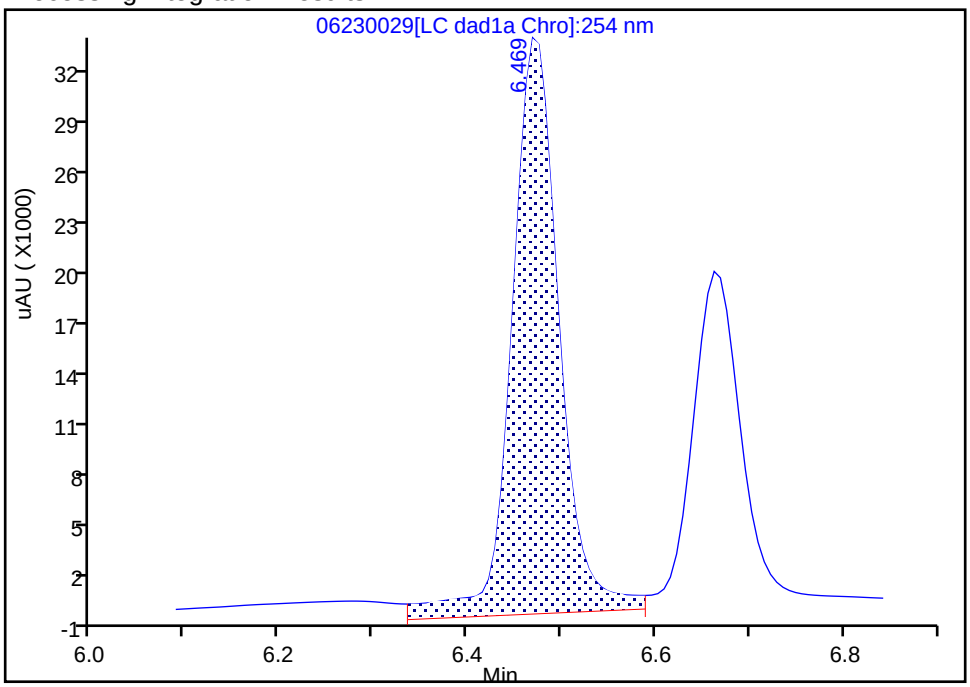
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230029.d				
Injection Date:	24-Jun-2023 00:46:42	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

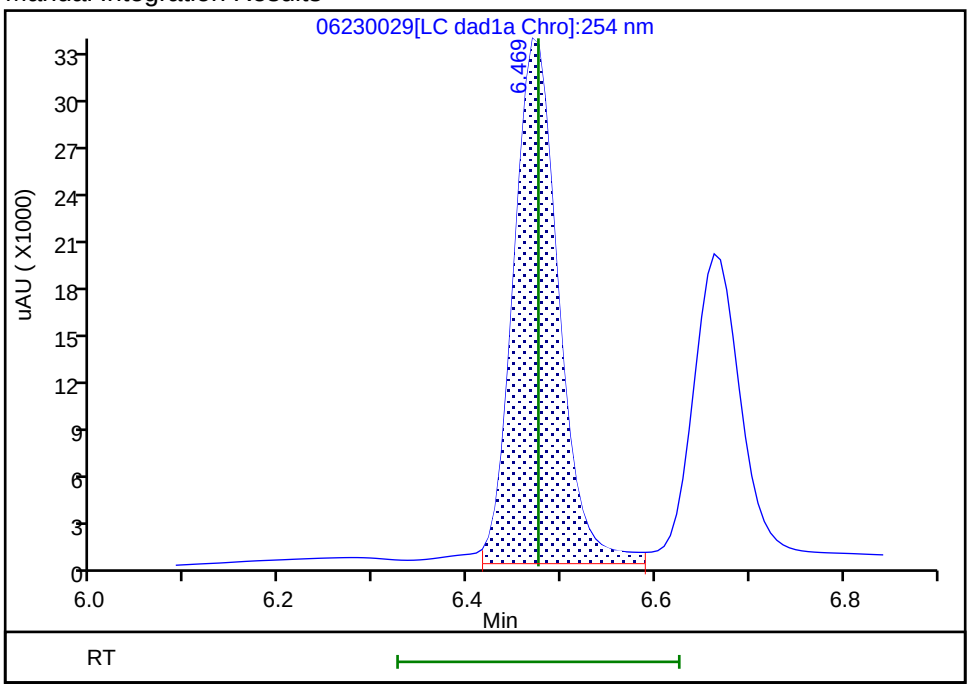
Processing Integration Results

RT: 6.47
Area: 120408
Amount: 0.525262
Amount Units: ug/mL



Manual Integration Results

RT: 6.47
Area: 111459
Amount: 0.494132
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:43:09 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

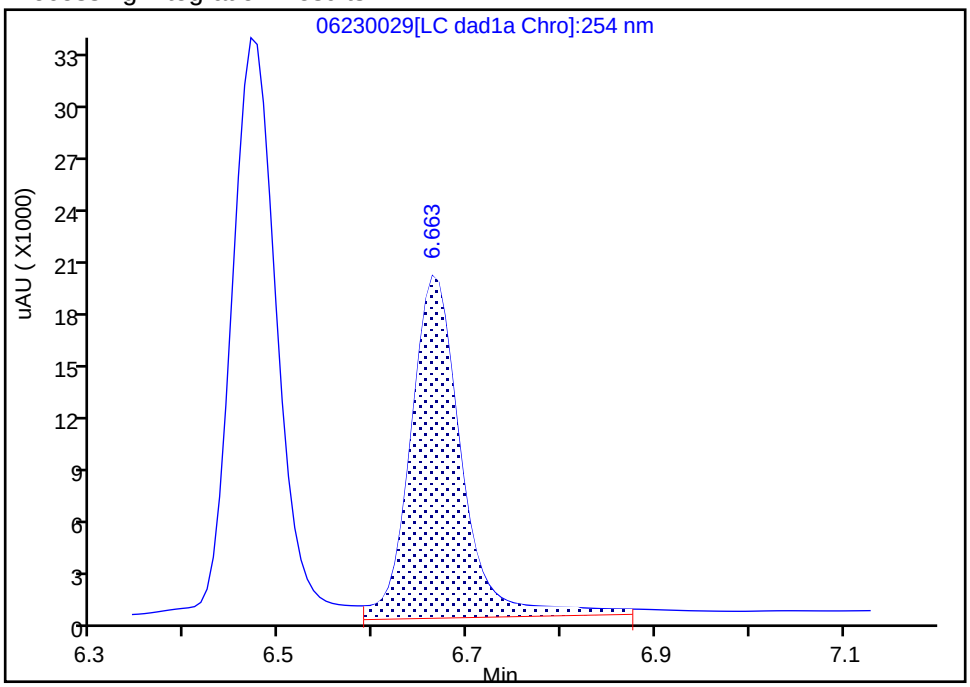
Data File:	\\chromfs\denver\chromdata\chhplc_x\20230623-122860.b\06230029.d				
Injection Date:	24-Jun-2023 00:46:42	Instrument ID:	CHHPLC_X3		
Lims ID:	ICV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	29	Worklist Smp#:	29
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

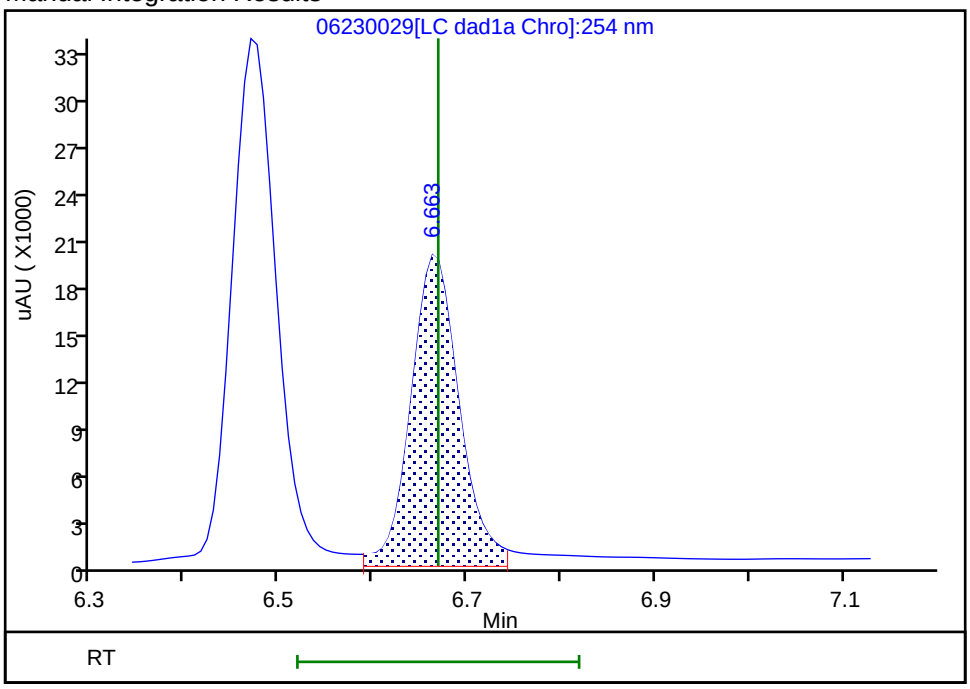
Processing Integration Results

RT: 6.66
Area: 74254
Amount: 0.503423
Amount Units: ug/mL



Manual Integration Results

RT: 6.66
Area: 70376
Amount: 0.491020
Amount Units: ug/mL



Reviewer: LV5D, 24-Jun-2023 10:43:10 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/8 | Calibration Date: 10/12/2023 13:20

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/23/2023 20:57

Lab File ID: 10120008.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	211673		264	251	5.4	20.0
HMX	Ave	94255	99528		264	250	5.6	20.0
DNX	Ave	144493	148951		258	250	3.1	20.0
MNX	Ave	138689	135938		286	292	-2.0	20.0
RDX	Ave	110493	106604		241	250	-3.5	20.0
Picric acid	Ave	77863	75372		242	250	-3.2	20.0
1,3,5-Trinitrobenzene	Ave	216079	216352		250	250	0.1	20.0
1,3-Dinitrobenzene	Ave	293347	292152		249	250	-0.4	20.0
Nitrobenzene	Ave	192696	190336		247	250	-1.2	20.0
3,5-Dinitroaniline	Lin2		214020		238	250	-4.7	20.0
Tetryl	Ave	167257	170872		255	250	2.2	20.0
Nitroglycerin	Ave	64651	67028		2590	2500	3.7	20.0
2,4,6-Trinitrotoluene	Ave	204902	202948		248	250	-1.0	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	150892		252	250	0.9	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	192272		248	250	-0.7	20.0
2,6-Dinitrotoluene	Ave	142638	141432		248	250	-0.8	20.0
2,4-Dinitrotoluene	Ave	295706	291620		247	250	-1.4	20.0
2-Nitrotoluene	Ave	126123	124048		246	250	-1.6	20.0
4-Nitrotoluene	Ave	110088	105984		241	250	-3.7	20.0
3-Nitrotoluene	Lin2		134200		244	250	-2.6	20.0
PETN	Ave	72018	73963		2570	2500	2.7	20.0
1,2-Dinitrobenzene	Ave	123911	125892		254	250	1.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/8 Calibration Date: 10/12/2023 13:20

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10120008.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.44	6.34	6.54
HMX	6.57	6.42	6.72
DNX	6.77	6.67	6.87
MNX	7.19	7.04	7.34
RDX	7.57	7.42	7.72
Picric acid	7.94	7.79	8.09
1,3,5-Trinitrobenzene	8.64	8.49	8.79
1,3-Dinitrobenzene	9.24	9.09	9.39
Nitrobenzene	9.61	9.46	9.76
3,5-Dinitroaniline	9.82	9.67	9.97
Tetryl	9.96	9.81	10.11
Nitroglycerin	10.40	10.25	10.55
2,4,6-Trinitrotoluene	10.84	10.74	10.94
4-Amino-2,6-dinitrotoluene	11.01	10.91	11.11
2-Amino-4,6-dinitrotoluene	11.26	11.16	11.36
2,6-Dinitrotoluene	11.42	11.32	11.52
2,4-Dinitrotoluene	11.58	11.48	11.68
2-Nitrotoluene	12.38	12.23	12.53
4-Nitrotoluene	12.79	12.64	12.94
3-Nitrotoluene	13.35	13.20	13.50
PETN	14.46	14.31	14.61
1,2-Dinitrobenzene	8.51	8.36	8.66

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120008.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 12-Oct-2023 13:20:13 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:47 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 13:56:23

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.443	6.443	0.000	53077	0.2508	0.2644	M
4 HMX	1	6.570	6.570	0.000	24882	0.2500	0.2640	M
6 DNX	1	6.770	6.770	0.000	37275	0.2503	0.2580	M
7 MNX	1	7.190	7.190	0.000	39660	0.2918	0.2860	
8 RDX	1	7.570	7.570	0.000	26651	0.2500	0.2412	
9 2,4,6-Trinitrophenol	1	7.943	7.943	0.000	18843	0.2500	0.2420	
$ 10 1,2-Dinitrobenzene	1	8.510	8.510	0.000	31473	0.2500	0.2540	
11 1,3,5-Trinitrobenzene	1	8.637	8.637	0.000	54088	0.2500	0.2503	
12 1,3-Dinitrobenzene	1	9.243	9.243	0.000	73038	0.2500	0.2490	
13 Nitrobenzene	1	9.610	9.610	0.000	47584	0.2500	0.2469	
14 3,5-Dinitroaniline	1	9.823	9.823	0.000	53505	0.2500	0.2382	
15 Tetryl	1	9.956	9.956	0.000	42718	0.2500	0.2554	
16 Nitroglycerin	2	10.403	10.403	0.000	167569	2.50	2.59	
17 2,4,6-Trinitrotoluene	1	10.836	10.836	0.000	50737	0.2500	0.2476	
18 4-Amino-2,6-dinitrotoluene	1	11.010	11.010	0.000	37723	0.2500	0.2522	
19 2-Amino-4,6-dinitrotoluene	1	11.256	11.256	0.000	48068	0.2500	0.2481	
20 2,6-Dinitrotoluene	1	11.416	11.416	0.000	35358	0.2500	0.2479	
21 2,4-Dinitrotoluene	1	11.583	11.583	0.000	72905	0.2500	0.2465	
22 o-Nitrotoluene	1	12.383	12.383	0.000	31012	0.2500	0.2459	
23 p-Nitrotoluene	1	12.790	12.790	0.000	26496	0.2500	0.2407	
24 m-Nitrotoluene	1	13.350	13.350	0.000	33550	0.2500	0.2436	
25 PETN	2	14.463	14.463	0.000	184908	2.50	2.57	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL

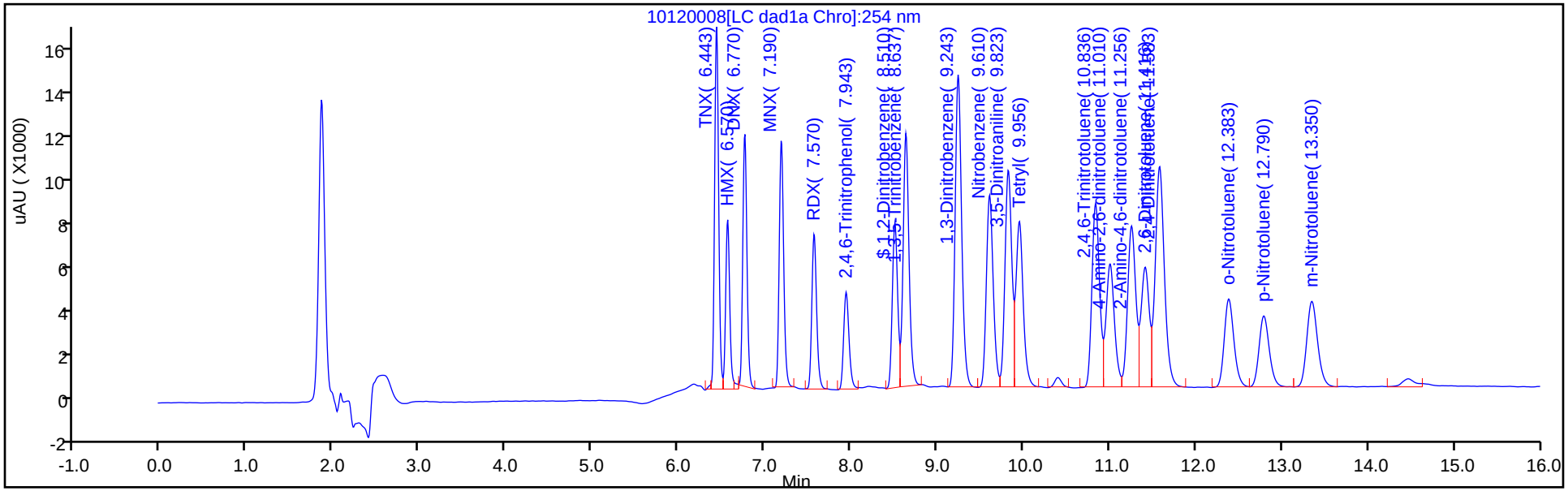
Report Date: 13-Oct-2023 09:16:48 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

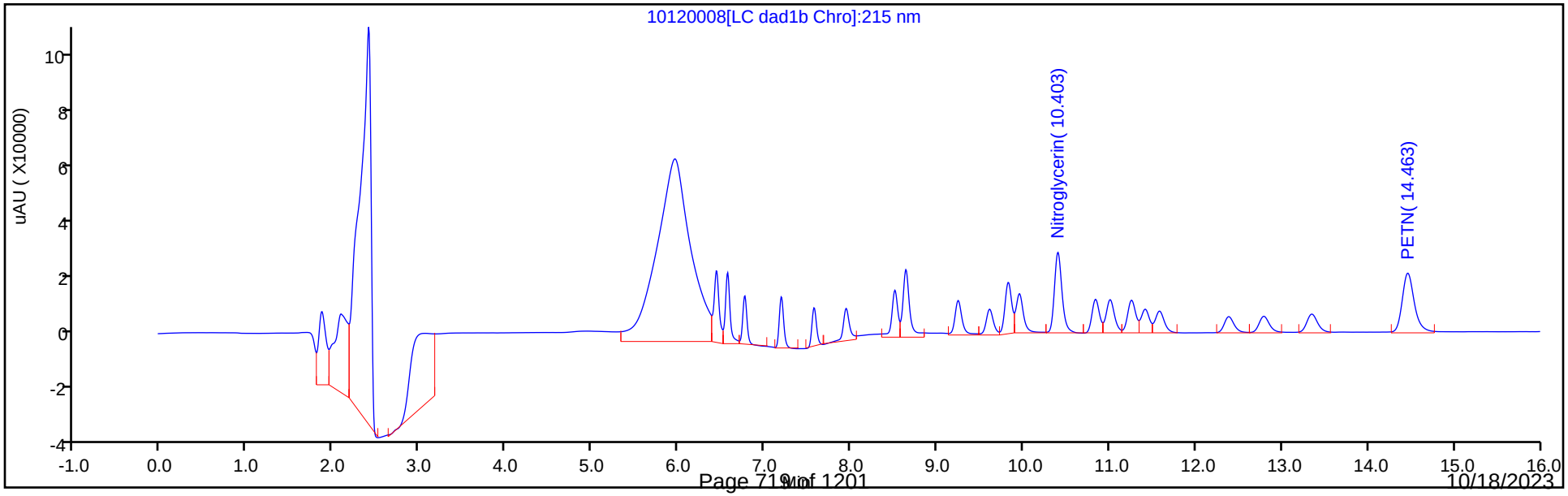
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120008.d

Injection Date:	12-Oct-2023 13:20:13	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

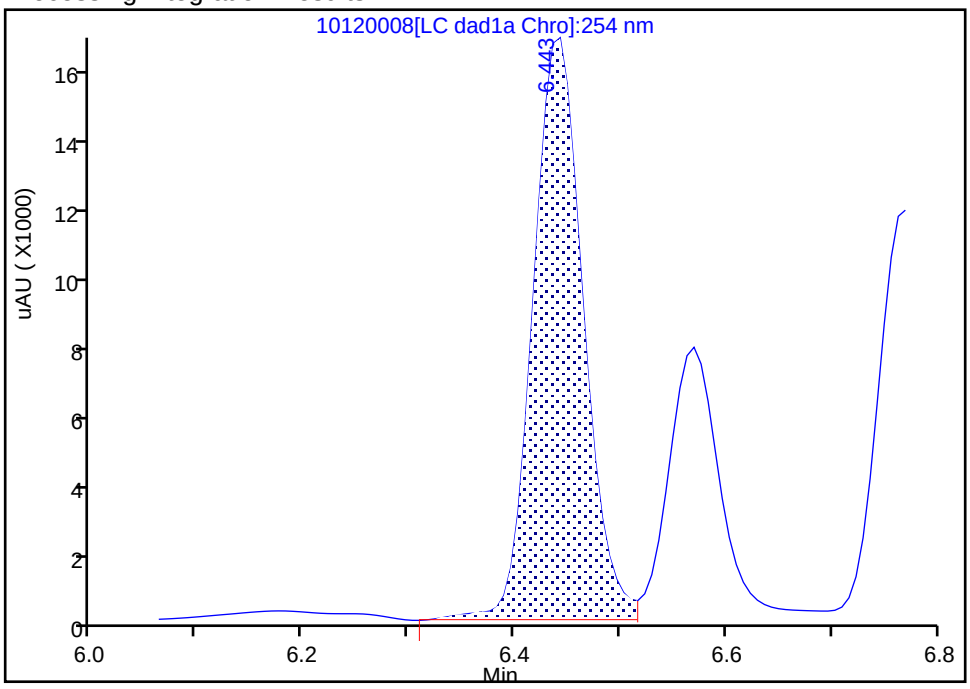
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120008.d				
Injection Date:	12-Oct-2023 13:20:13	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

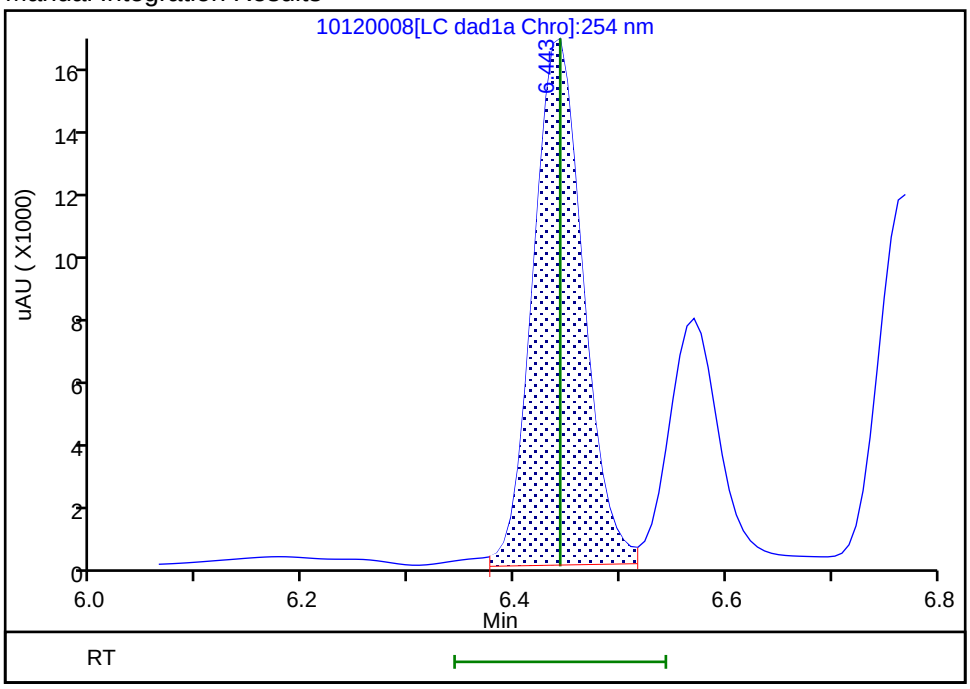
Processing Integration Results

RT: 6.44
Area: 53571
Amount: 0.266840
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 53077
Amount: 0.264379
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 13:56:13 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

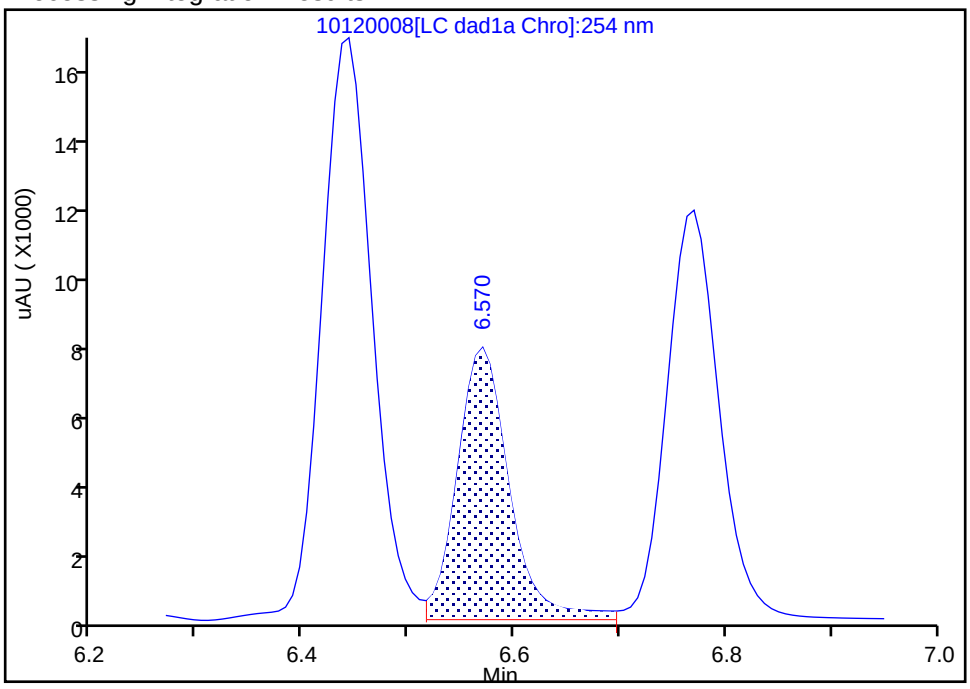
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120008.d
Injection Date: 12-Oct-2023 13:20:13 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

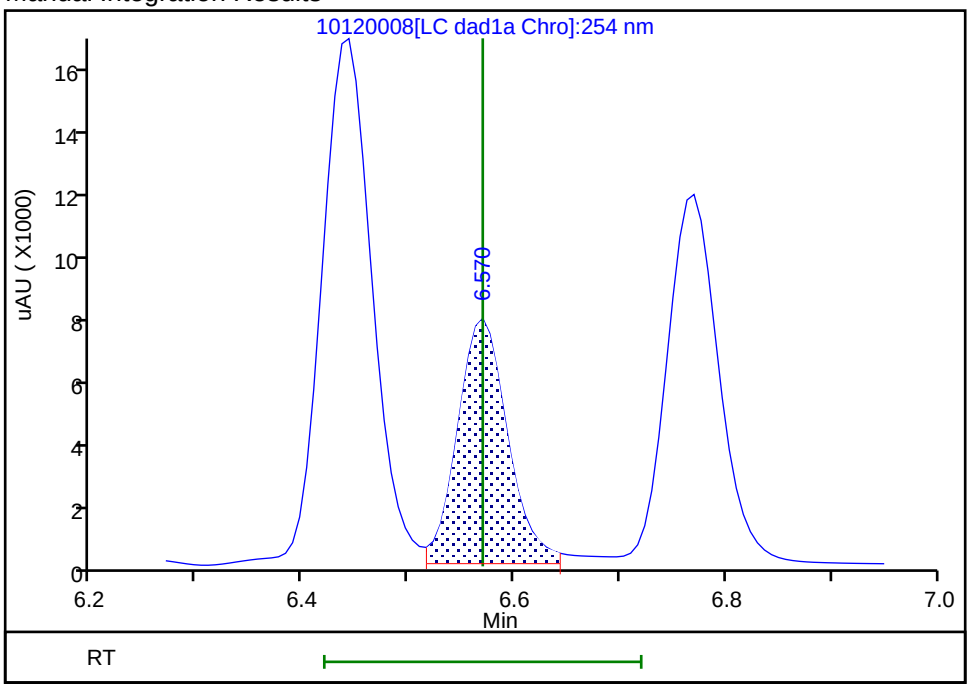
Processing Integration Results

RT: 6.57
Area: 25723
Amount: 0.272908
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 24882
Amount: 0.263985
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 13:56:15 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

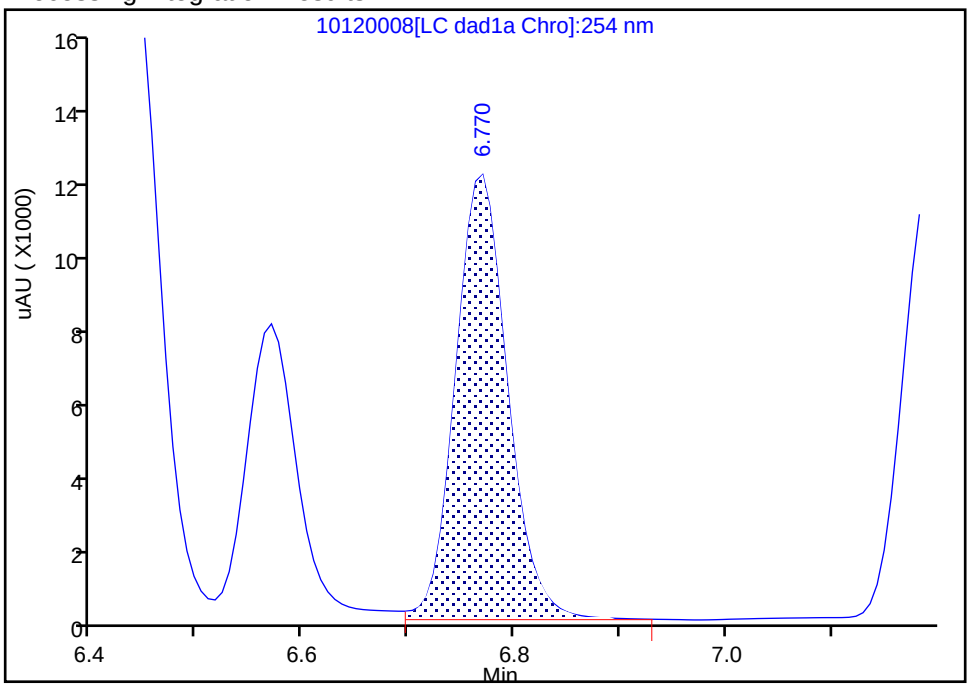
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120008.d				
Injection Date:	12-Oct-2023 13:20:13	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

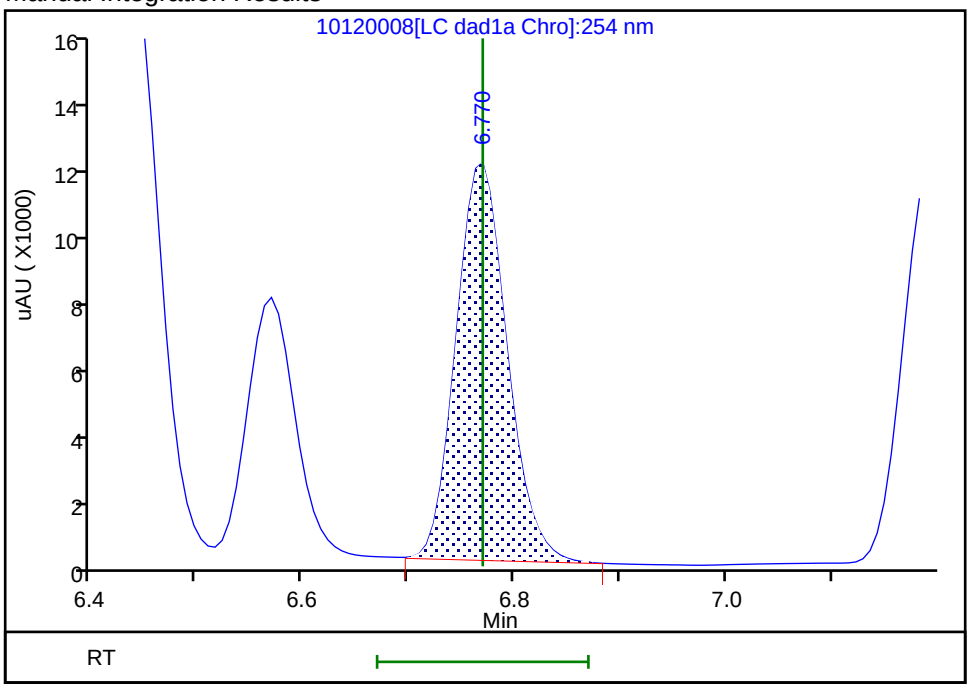
Processing Integration Results

RT: 6.77
Area: 38936
Amount: 0.269467
Amount Units: ug/mL



Manual Integration Results

RT: 6.77
Area: 37275
Amount: 0.257971
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 13:56:19 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/9 | Calibration Date: 10/12/2023 13:43

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/24/2023 00:23

Lab File ID: 10120009.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	198488		220	250	-12.0	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	122720		214	250	-14.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/9 Calibration Date: 10/12/2023 13:43

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10120009.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.44	6.29	6.59
2,4-diamino-6-nitrotoluene	6.63	6.48	6.78

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120009.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 12-Oct-2023 13:43:12 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:48 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 15:54:03

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.435	6.435	0.000	49622	0.2500	0.2200	M
5 2,4-diamino-6-nitrotoluene	1	6.629	6.629	0.000	30680	0.2500	0.2141	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

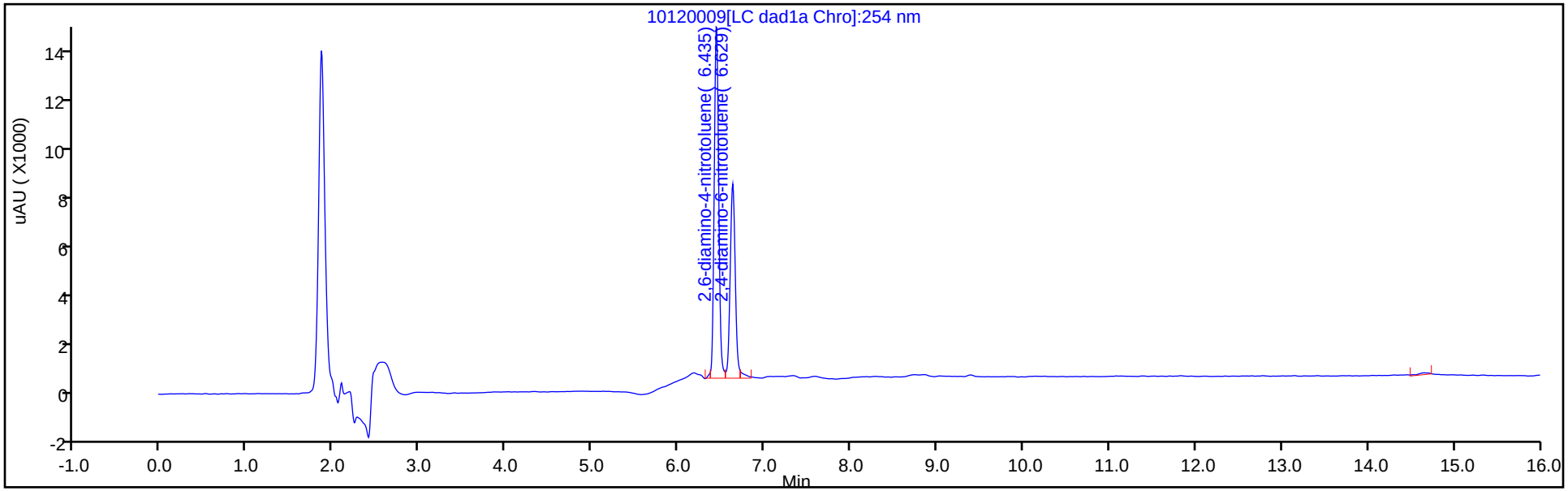
Report Date: 13-Oct-2023 09:16:49 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

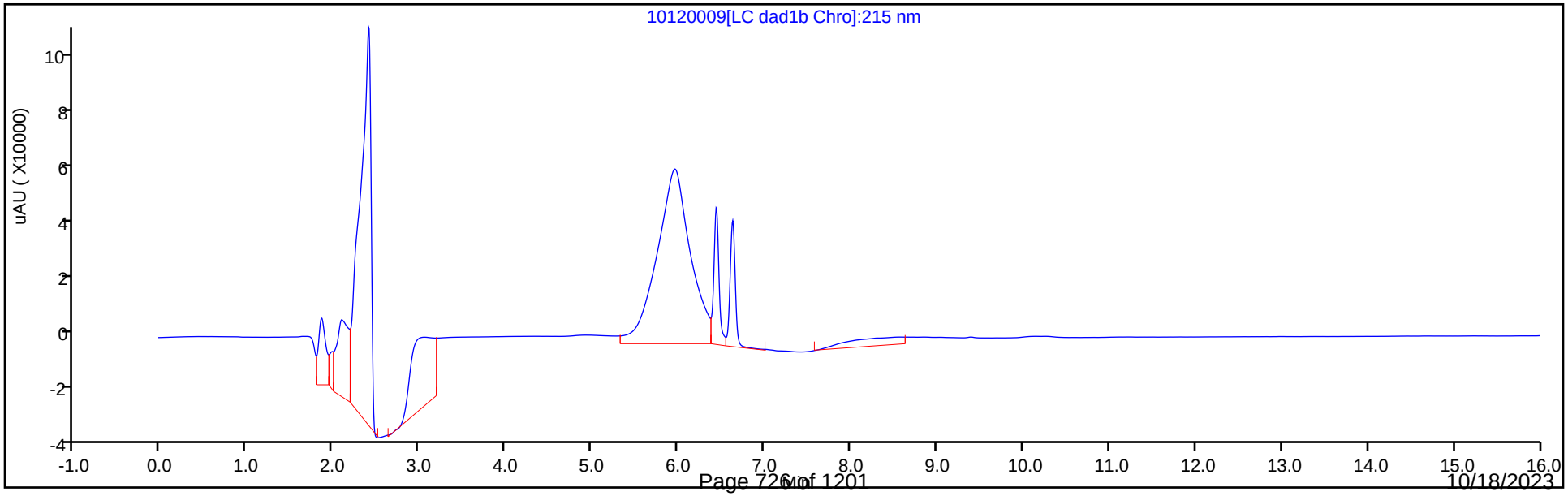
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120009.d

Injection Date:	12-Oct-2023 13:43:12	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

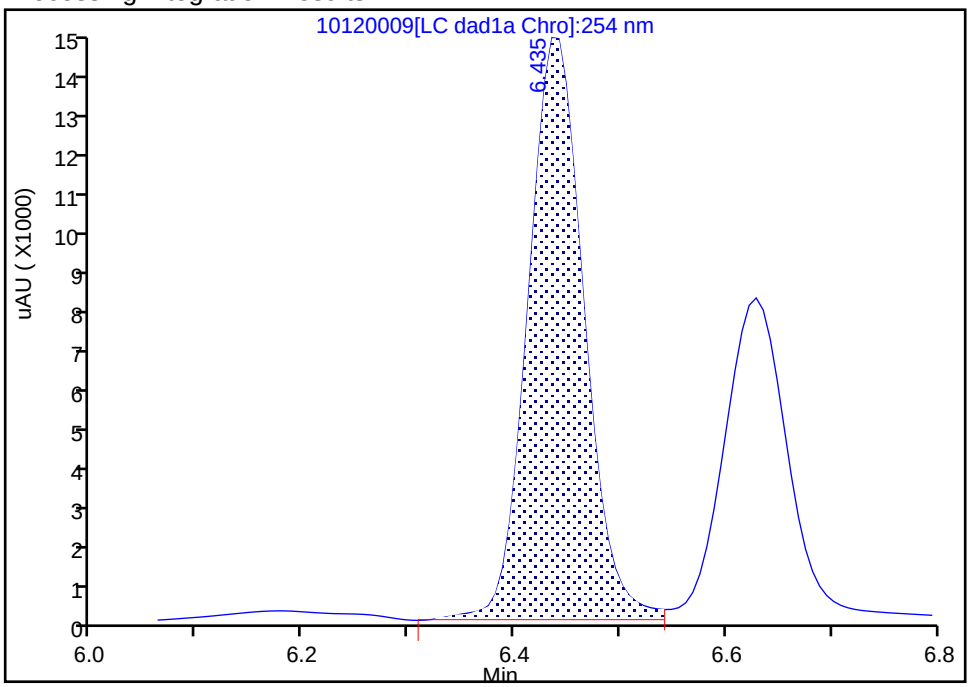
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120009.d
Injection Date: 12-Oct-2023 13:43:12 Instrument ID: CHHPLC_X3
Lims ID: CCV ADD
Client ID:
Operator ID: JZ/JG ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

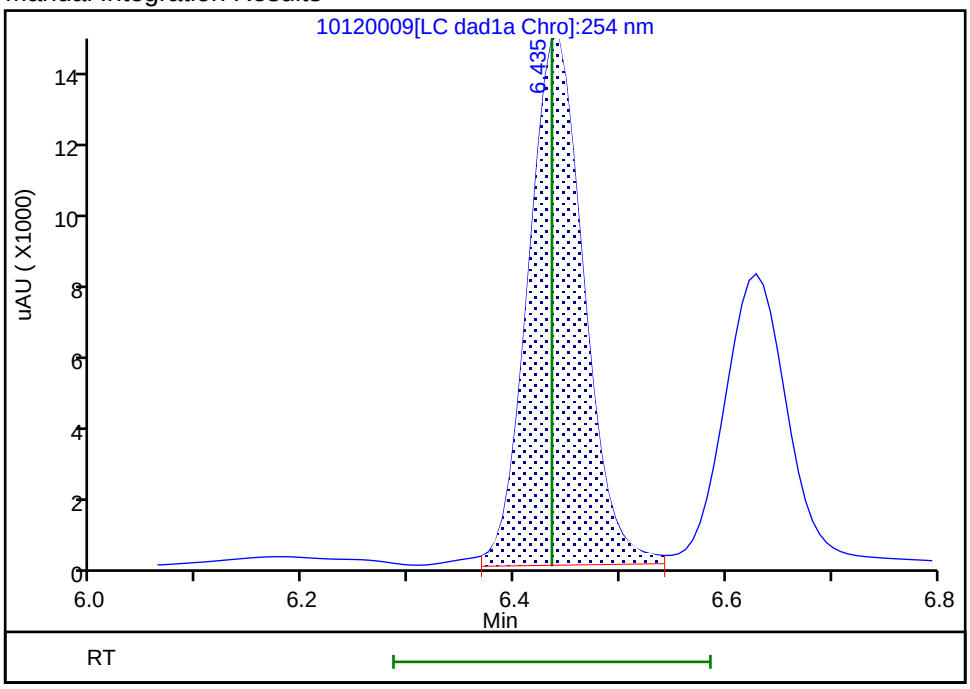
Processing Integration Results

RT: 6.44
Area: 49970
Amount: 0.221532
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 49622
Amount: 0.219990
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 15:54:00 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

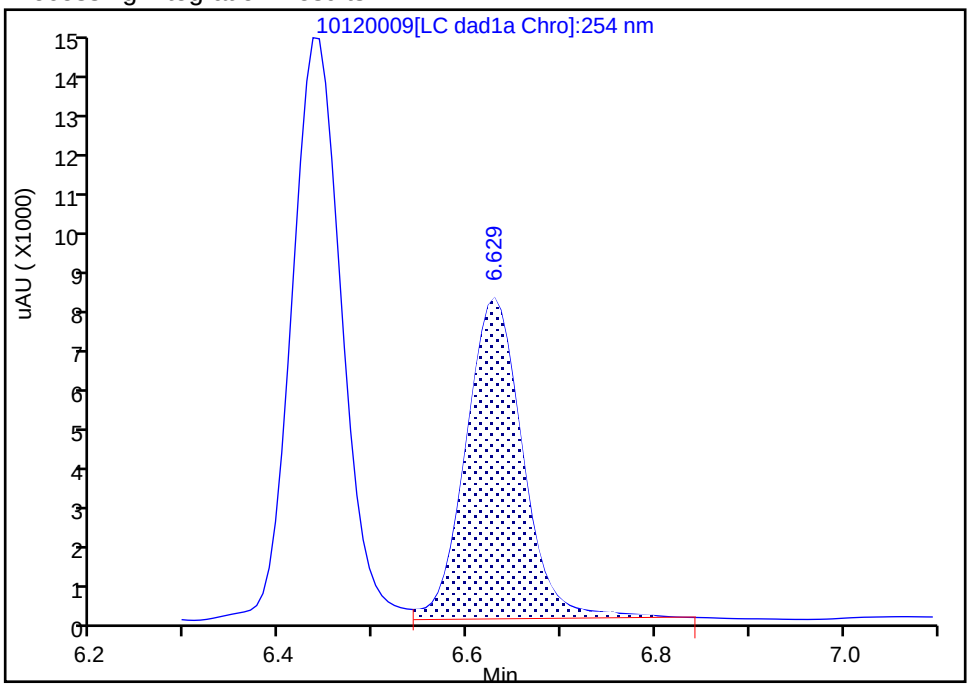
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120009.d				
Injection Date:	12-Oct-2023 13:43:12	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

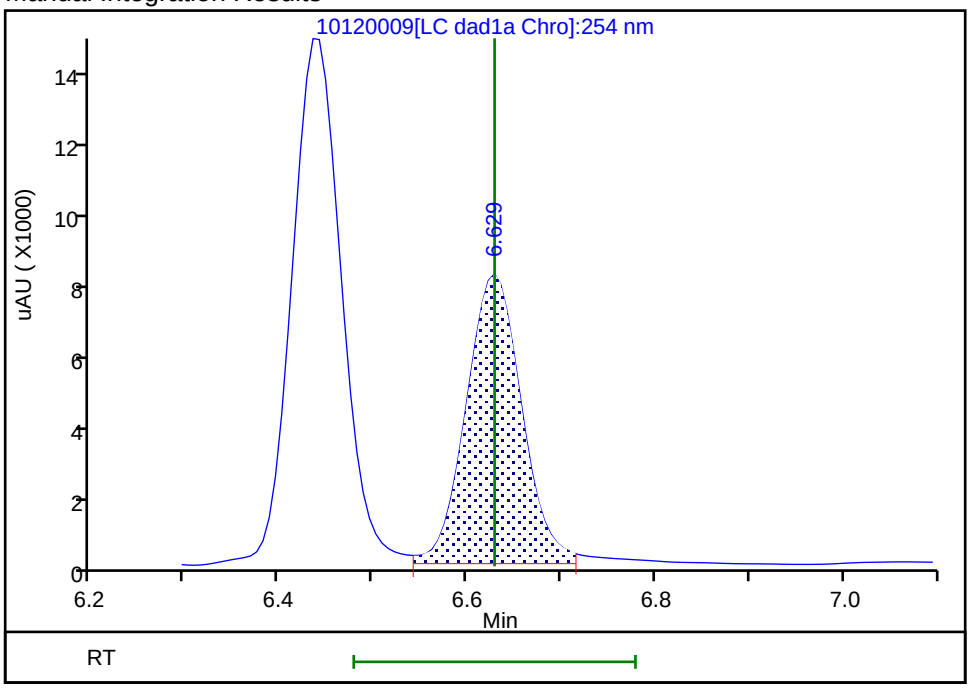
Processing Integration Results

RT: 6.63
Area: 31481
Amount: 0.219646
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 30680
Amount: 0.214057
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 15:54:01 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/21 | Calibration Date: 10/12/2023 17:55

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/24/2023 00:23

Lab File ID: 10120021.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	199576		221	250	-11.5	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	122956		214	250	-14.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/21 Calibration Date: 10/12/2023 17:55

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10120021.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.44	6.29	6.59
2,4-diamino-6-nitrotoluene	6.63	6.48	6.78

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120021.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 12-Oct-2023 17:55:42 ALS Bottle#: 8 Worklist Smp#: 21
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:41 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 19:22:06

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.443	6.435	0.008	49894	0.2500	0.2212	M
5 2,4-diamino-6-nitrotoluene	1	6.630	6.629	0.001	30739	0.2500	0.2145	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

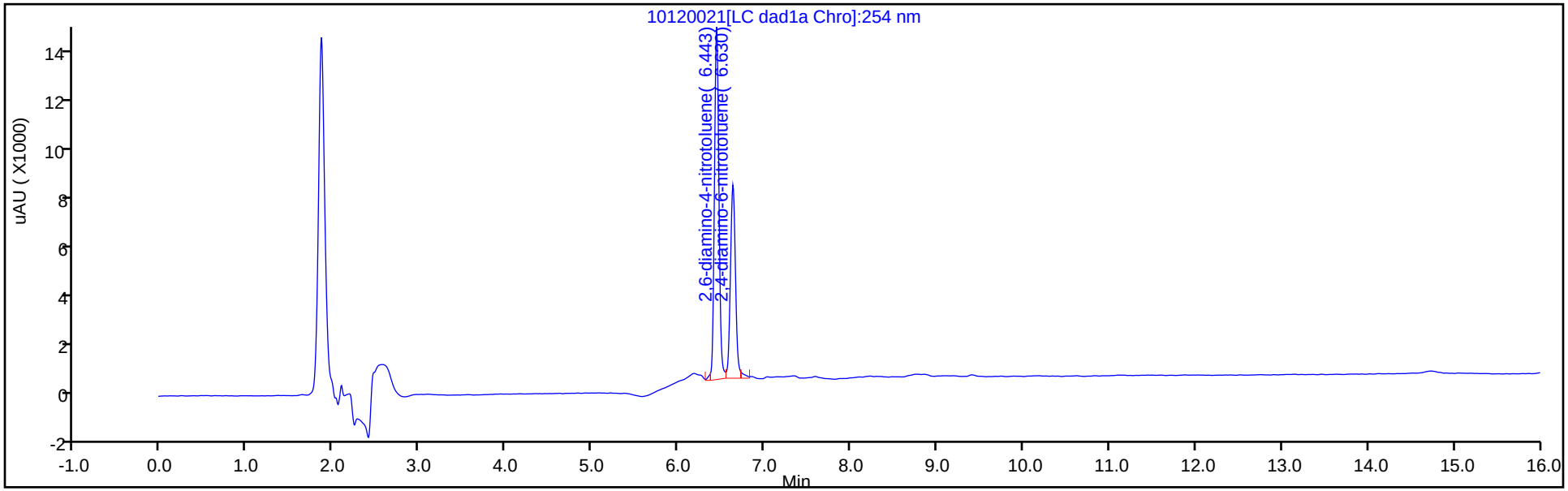
Report Date: 13-Oct-2023 09:16:42 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

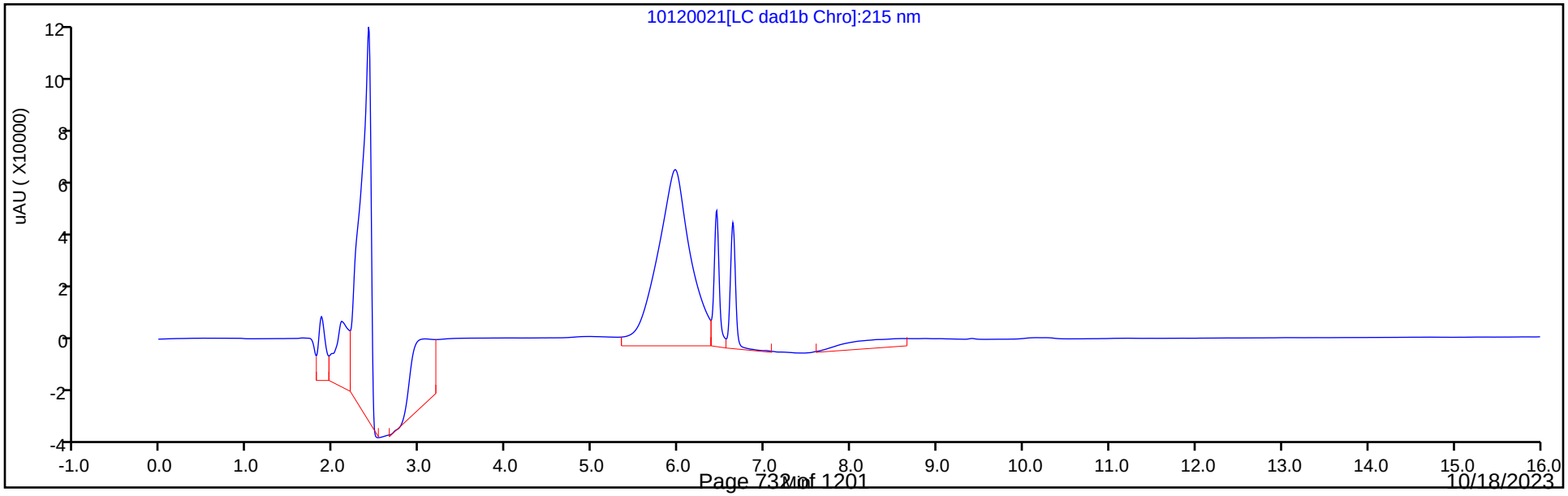
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120021.d

Injection Date:	12-Oct-2023 17:55:42	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	21
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

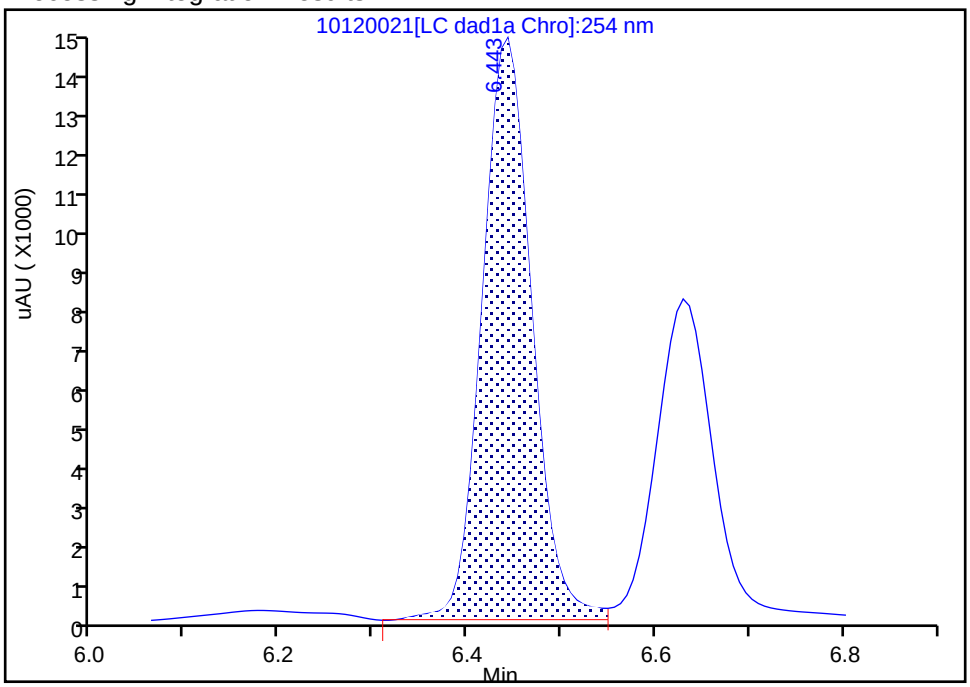
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120021.d				
Injection Date:	12-Oct-2023 17:55:42	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

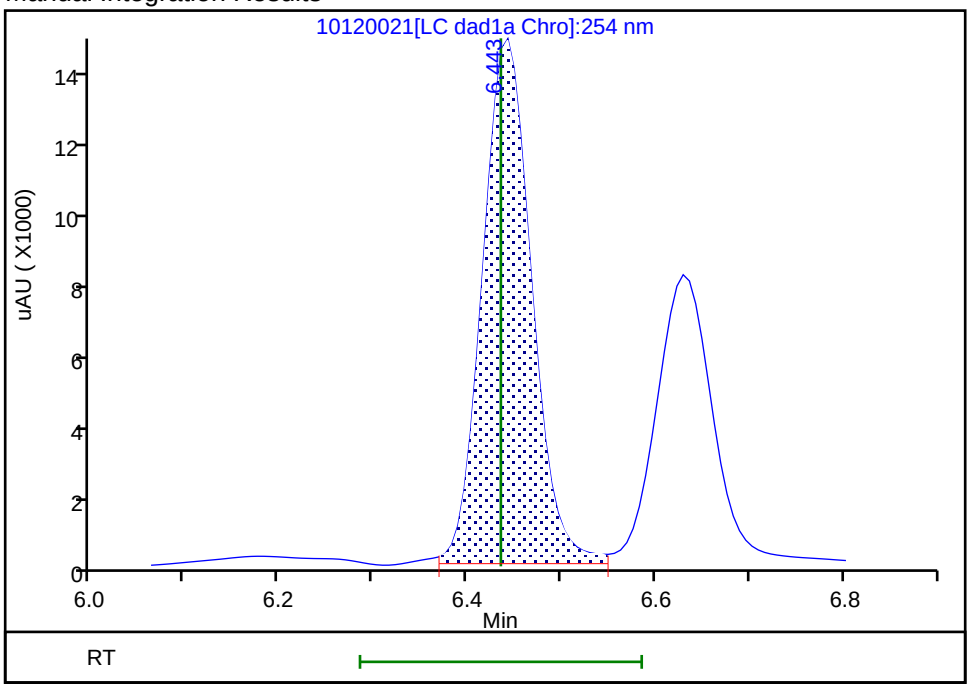
Processing Integration Results

RT: 6.44
Area: 50198
Amount: 0.222543
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 49894
Amount: 0.221195
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:22:02 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

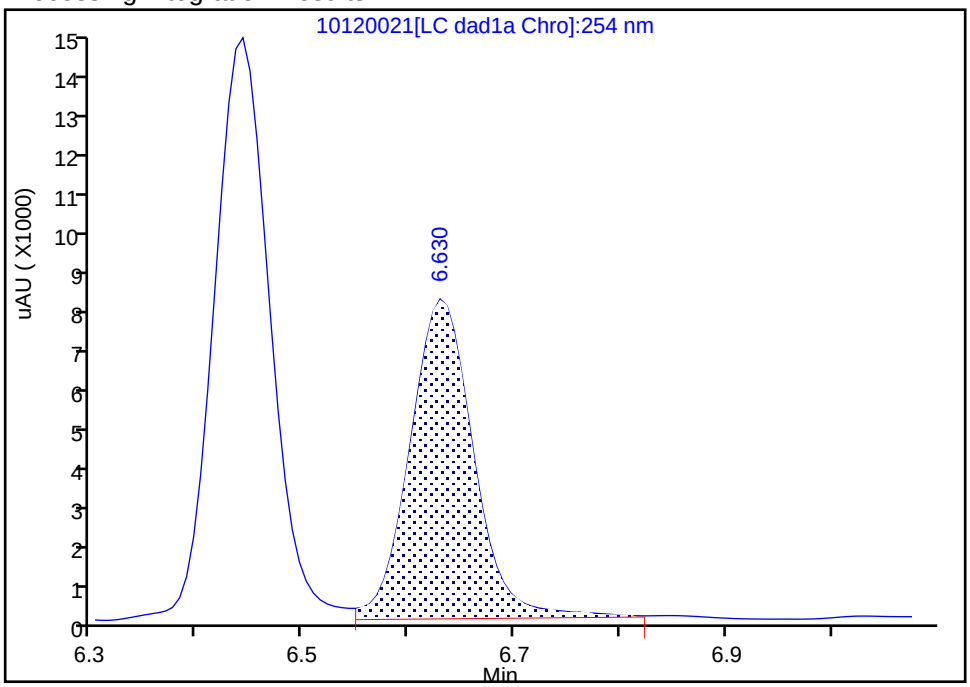
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120021.d				
Injection Date:	12-Oct-2023 17:55:42	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	21
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

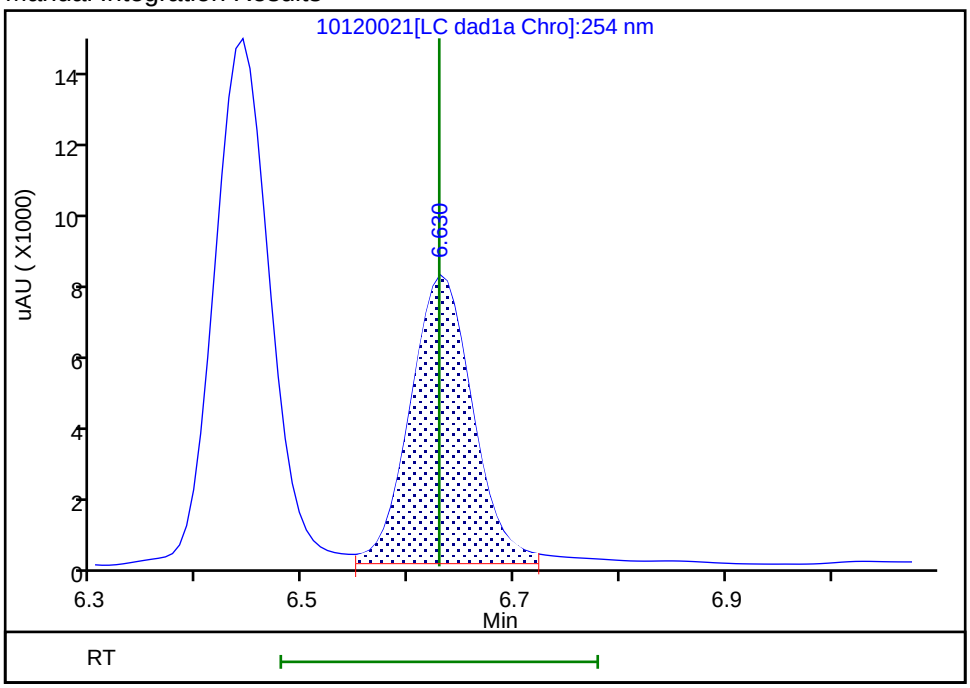
Processing Integration Results

RT: 6.63
Area: 31392
Amount: 0.219025
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 30739
Amount: 0.214469
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:22:03 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/22 | Calibration Date: 10/12/2023 18:18

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/23/2023 20:57

Lab File ID: 10120022.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	203206		254	251	1.2	20.0
HMX	Ave	94255	94004		249	250	-0.3	20.0
DNX	Ave	144493	149323		259	250	3.3	20.0
MNX	Ave	138689	140161		295	292	1.1	20.0
RDX	Ave	110493	107804		244	250	-2.4	20.0
Picric acid	Ave	77863	76780		247	250	-1.4	20.0
1,3,5-Trinitrobenzene	Ave	216079	222116		257	250	2.8	20.0
1,3-Dinitrobenzene	Ave	293347	294540		251	250	0.4	20.0
Nitrobenzene	Ave	192696	188488		245	250	-2.2	20.0
3,5-Dinitroaniline	Lin2		212236		236	250	-5.5	20.0
Tetryl	Ave	167257	176704		264	250	5.6	20.0
Nitroglycerin	Ave	64651	67420		2610	2500	4.3	20.0
2,4,6-Trinitrotoluene	Ave	204902	205192		250	250	0.1	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	150484		252	250	0.6	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	191280		247	250	-1.3	20.0
2,6-Dinitrotoluene	Ave	142638	142692		250	250	0.0	20.0
2,4-Dinitrotoluene	Ave	295706	295900		250	250	0.0	20.0
2-Nitrotoluene	Ave	126123	121764		241	250	-3.5	20.0
4-Nitrotoluene	Ave	110088	104344		237	250	-5.2	20.0
3-Nitrotoluene	Lin2		132304		240	250	-4.0	20.0
PETN	Ave	72018	74370		2580	2500	3.3	20.0
1,2-Dinitrobenzene	Ave	123911	127028		256	250	2.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/22 Calibration Date: 10/12/2023 18:18

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10120022.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.44	6.34	6.54
HMX	6.57	6.42	6.72
DNX	6.77	6.67	6.87
MNX	7.20	7.04	7.34
RDX	7.58	7.42	7.72
Picric acid	7.96	7.79	8.09
1,3,5-Trinitrobenzene	8.65	8.49	8.79
1,3-Dinitrobenzene	9.26	9.09	9.39
Nitrobenzene	9.63	9.46	9.76
3,5-Dinitroaniline	9.85	9.67	9.97
Tetryl	9.98	9.81	10.11
Nitroglycerin	10.43	10.25	10.55
2,4,6-Trinitrotoluene	10.87	10.74	10.94
4-Amino-2,6-dinitrotoluene	11.04	10.91	11.11
2-Amino-4,6-dinitrotoluene	11.29	11.16	11.36
2,6-Dinitrotoluene	11.45	11.32	11.52
2,4-Dinitrotoluene	11.62	11.48	11.68
2-Nitrotoluene	12.42	12.23	12.53
4-Nitrotoluene	12.84	12.64	12.94
3-Nitrotoluene	13.40	13.20	13.50
PETN	14.53	14.31	14.61
1,2-Dinitrobenzene	8.52	8.36	8.66

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120022.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 12-Oct-2023 18:18:37 ALS Bottle#: 7 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:42 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 19:24:04

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3	TNX	1	6.444	6.443	0.001	50954	0.2508	0.2538	M
4	HMX	1	6.570	6.570	0.000	23501	0.2500	0.2493	M
6	DNX	1	6.770	6.770	0.000	37368	0.2503	0.2586	M
7	MNX	1	7.197	7.190	0.007	40892	0.2918	0.2948	
8	RDX	1	7.577	7.570	0.007	26951	0.2500	0.2439	
9	2,4,6-Trinitrophenol	1	7.957	7.943	0.014	19195	0.2500	0.2465	
$ 10	1,2-Dinitrobenzene	1	8.524	8.510	0.014	31757	0.2500	0.2563	
11	1,3,5-Trinitrobenzene	1	8.650	8.637	0.013	55529	0.2500	0.2570	
12	1,3-Dinitrobenzene	1	9.264	9.243	0.021	73635	0.2500	0.2510	
13	Nitrobenzene	1	9.630	9.610	0.020	47122	0.2500	0.2445	
14	3,5-Dinitroaniline	1	9.850	9.823	0.027	53059	0.2500	0.2362	
15	Tetryl	1	9.977	9.956	0.021	44176	0.2500	0.2641	
16	Nitroglycerin	2	10.430	10.403	0.027	168550	2.50	2.61	
17	2,4,6-Trinitrotoluene	1	10.870	10.836	0.034	51298	0.2500	0.2504	
18	4-Amino-2,6-dinitrotoluene	1	11.044	11.010	0.034	37621	0.2500	0.2515	
19	2-Amino-4,6-dinitrotoluene	1	11.290	11.256	0.034	47820	0.2500	0.2469	
20	2,6-Dinitrotoluene	1	11.450	11.416	0.034	35673	0.2500	0.2501	
21	2,4-Dinitrotoluene	1	11.617	11.583	0.034	73975	0.2500	0.2502	
22	o-Nitrotoluene	1	12.424	12.383	0.041	30441	0.2500	0.2414	
23	p-Nitrotoluene	1	12.837	12.790	0.047	26086	0.2500	0.2370	
24	m-Nitrotoluene	1	13.397	13.350	0.047	33076	0.2500	0.2401	
25	PETN	2	14.530	14.463	0.067	185924	2.50	2.58	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL

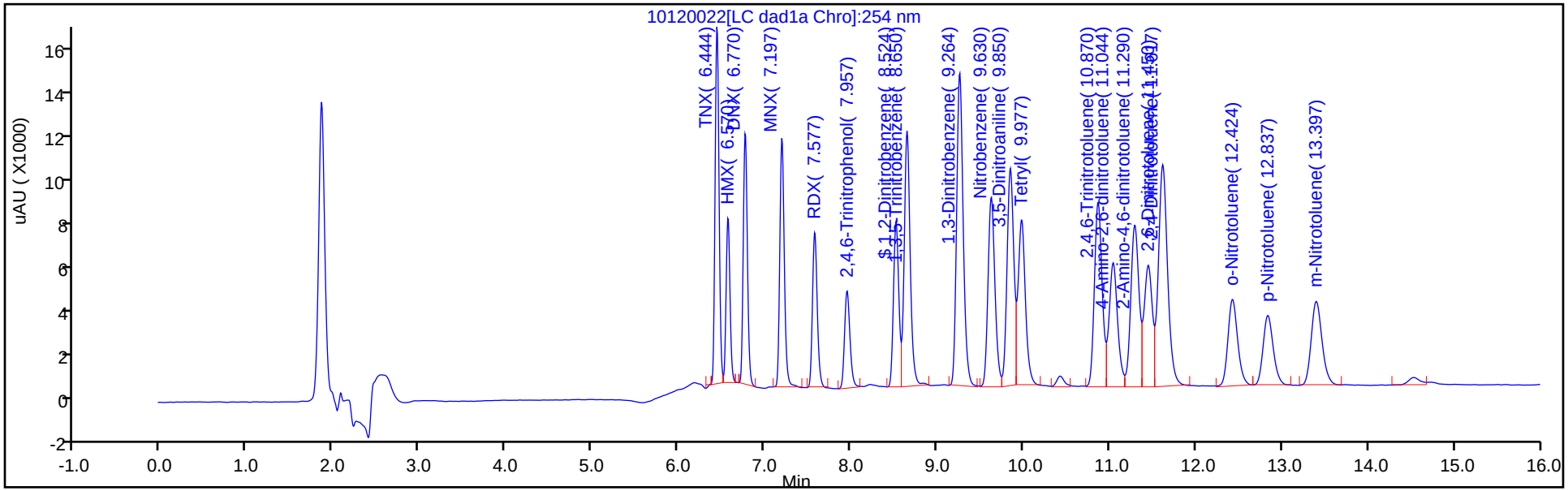
Report Date: 13-Oct-2023 09:16:42 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

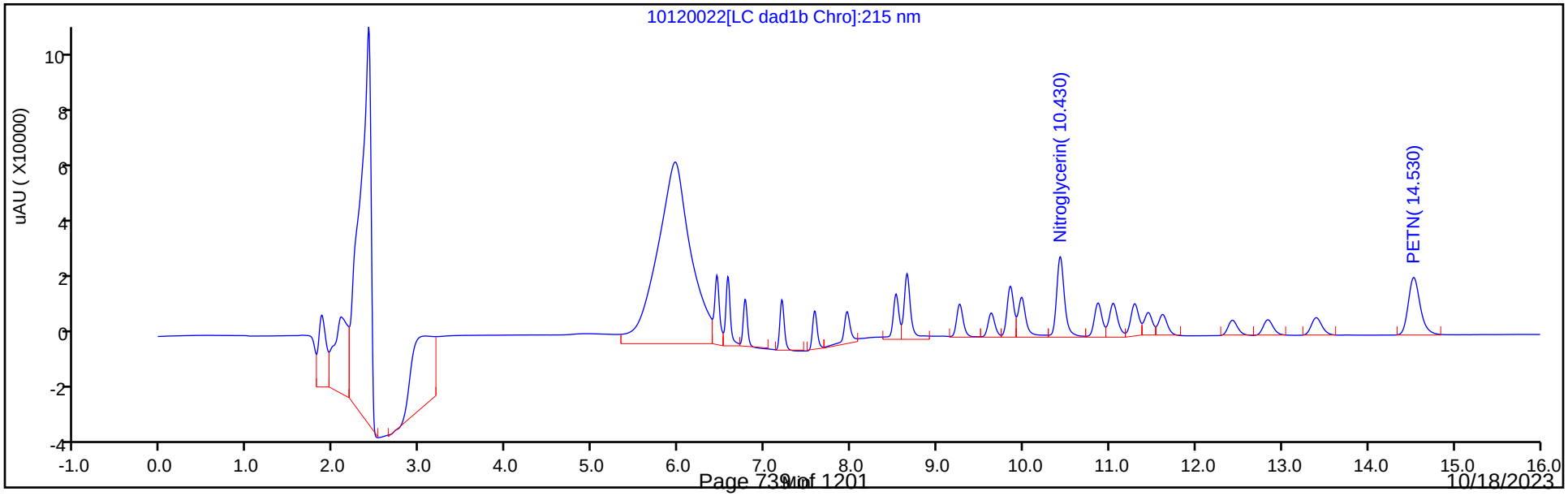
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120022.d

Injection Date:	12-Oct-2023 18:18:37	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	22
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

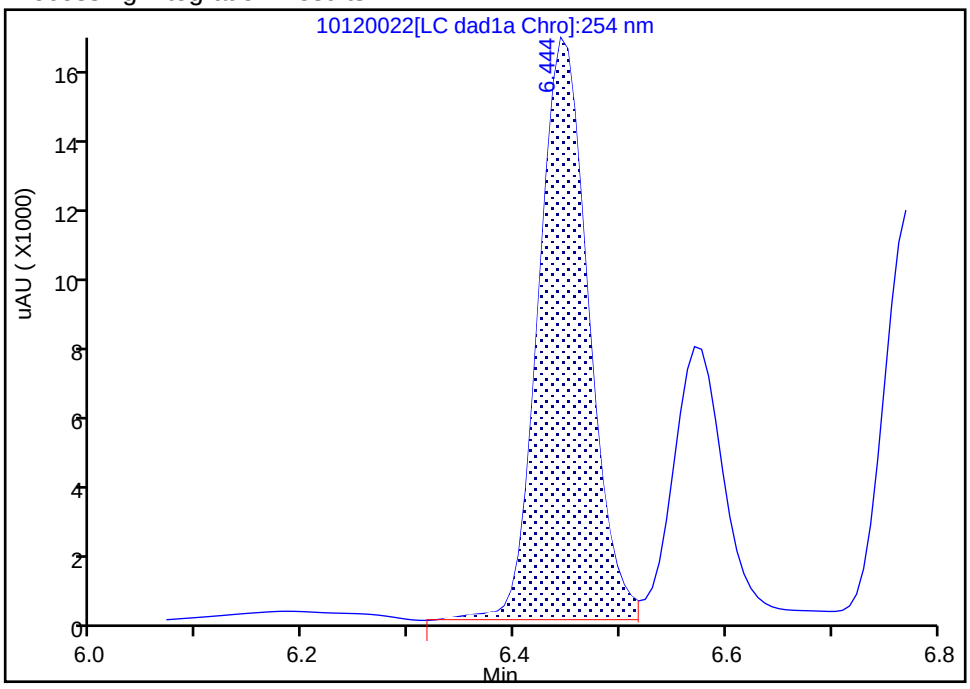
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120022.d				
Injection Date:	12-Oct-2023 18:18:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

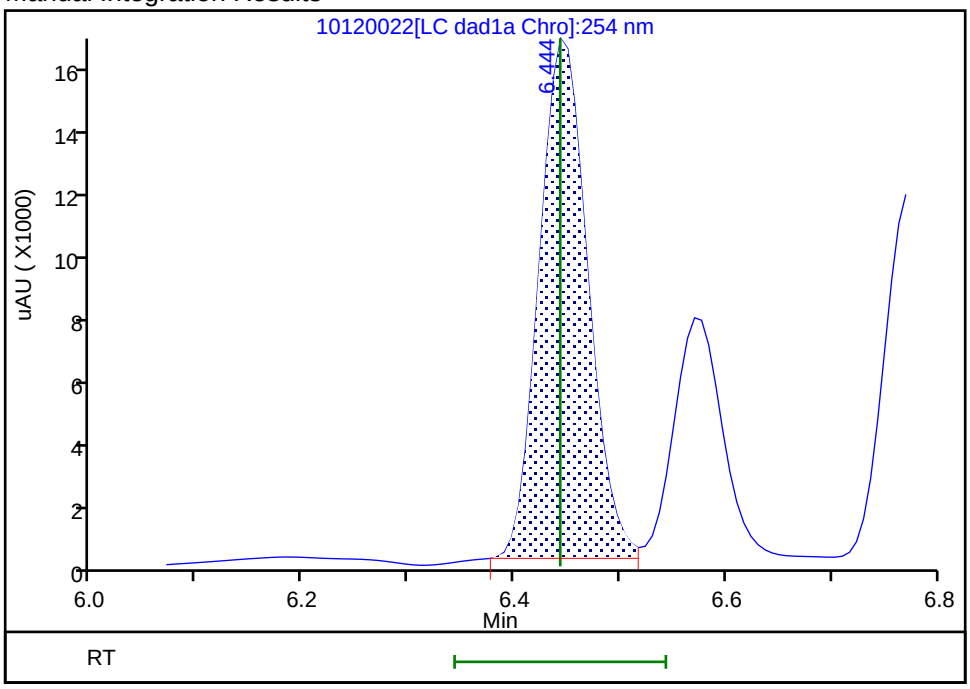
Processing Integration Results

RT: 6.44
Area: 53026
Amount: 0.264125
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 50954
Amount: 0.253804
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:23:59 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

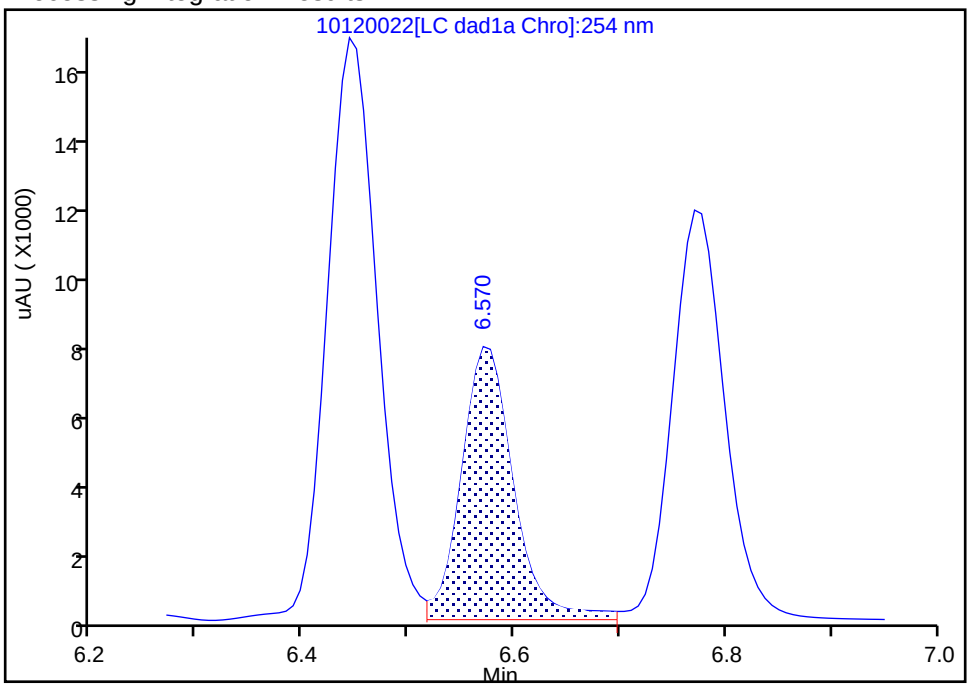
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120022.d
Injection Date: 12-Oct-2023 18:18:37 Instrument ID: CHHPLC_X3
Lims ID: CCV DMT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 7 Worklist Smp#: 22
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330
Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

4 HMX, CAS: 2691-41-0

Signal: 1

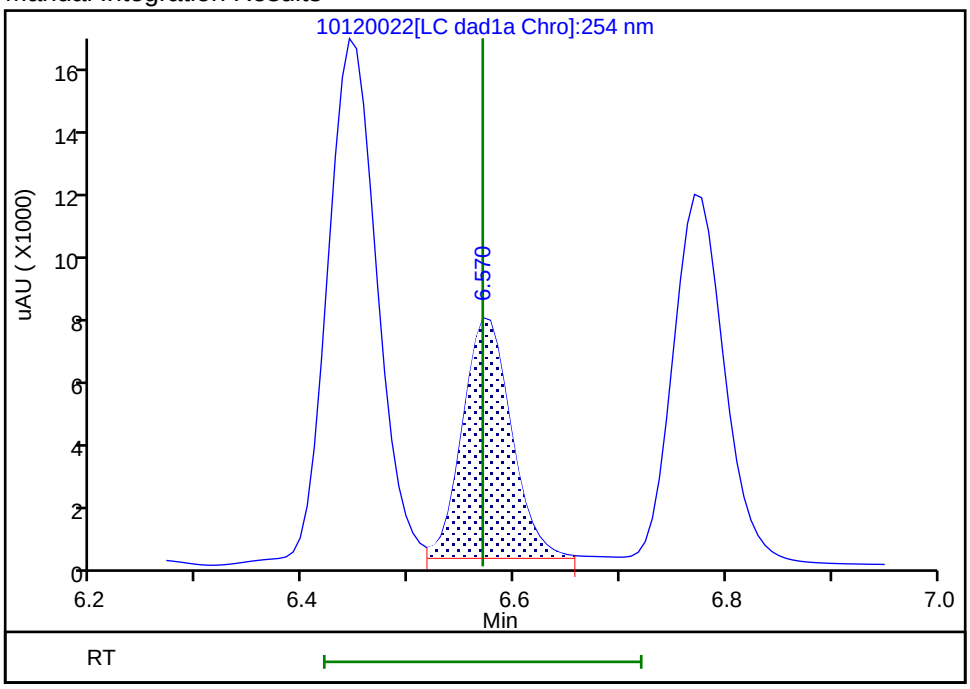
Processing Integration Results

RT: 6.57
Area: 25924
Amount: 0.275040
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 23501
Amount: 0.249333
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:24:00 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Denver

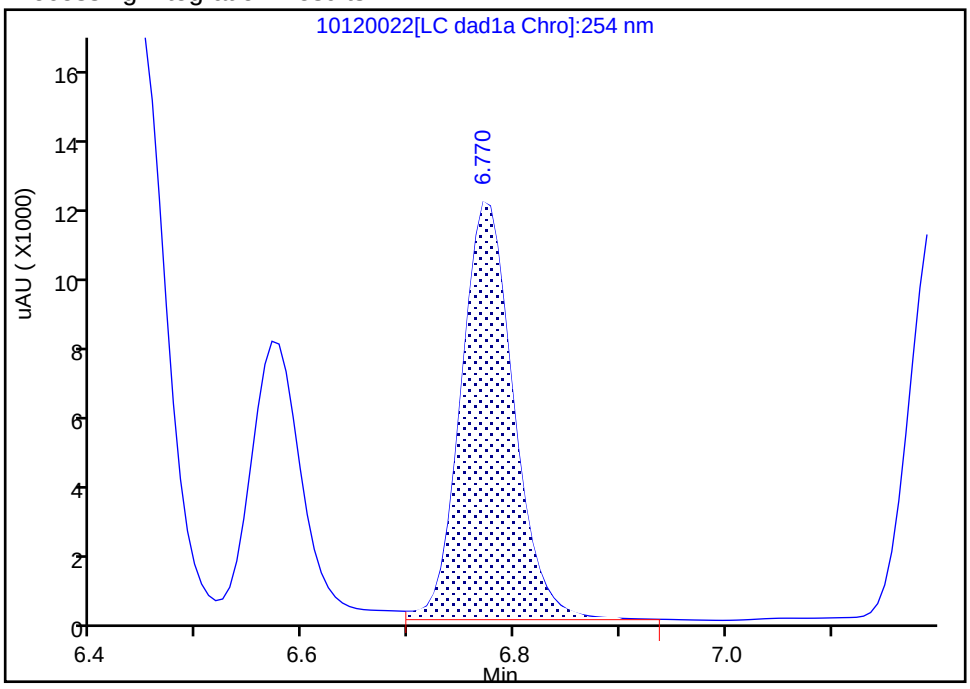
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120022.d				
Injection Date:	12-Oct-2023 18:18:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	22
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

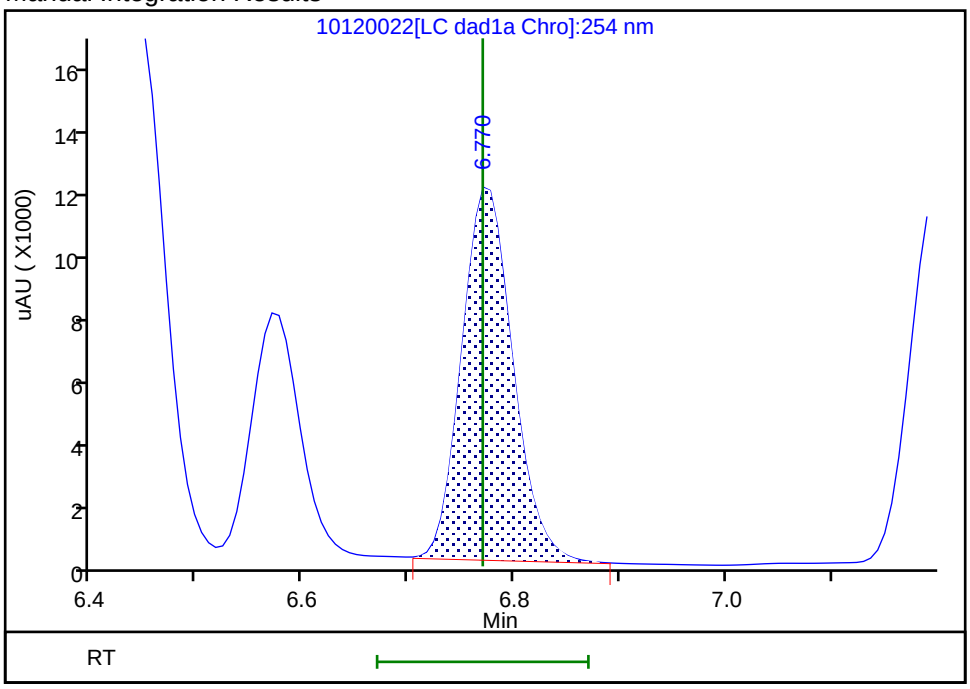
Processing Integration Results

RT: 6.77
Area: 39111
Amount: 0.270678
Amount Units: ug/mL



Manual Integration Results

RT: 6.77
Area: 37368
Amount: 0.258615
Amount Units: ug/mL



Reviewer: LV5D, 12-Oct-2023 19:24:03 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/32 Calibration Date: 10/12/2023 22:08

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10120032.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	199540		221	250	-11.5	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	125364		219	250	-12.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/32 Calibration Date: 10/12/2023 22:08

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10120032.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.45	6.29	6.59
2,4-diamino-6-nitrotoluene	6.63	6.48	6.78

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120032.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 12-Oct-2023 22:08:13 ALS Bottle#: 8 Worklist Smp#: 32
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:32 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: K8YG Date: 13-Oct-2023 08:37:43

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.445	6.435	0.010	49885	0.2500	0.2212	M
5 2,4-diamino-6-nitrotoluene	1	6.631	6.629	0.002	31341	0.2500	0.2187	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00037 Amount Added: 12.50 Units: uL

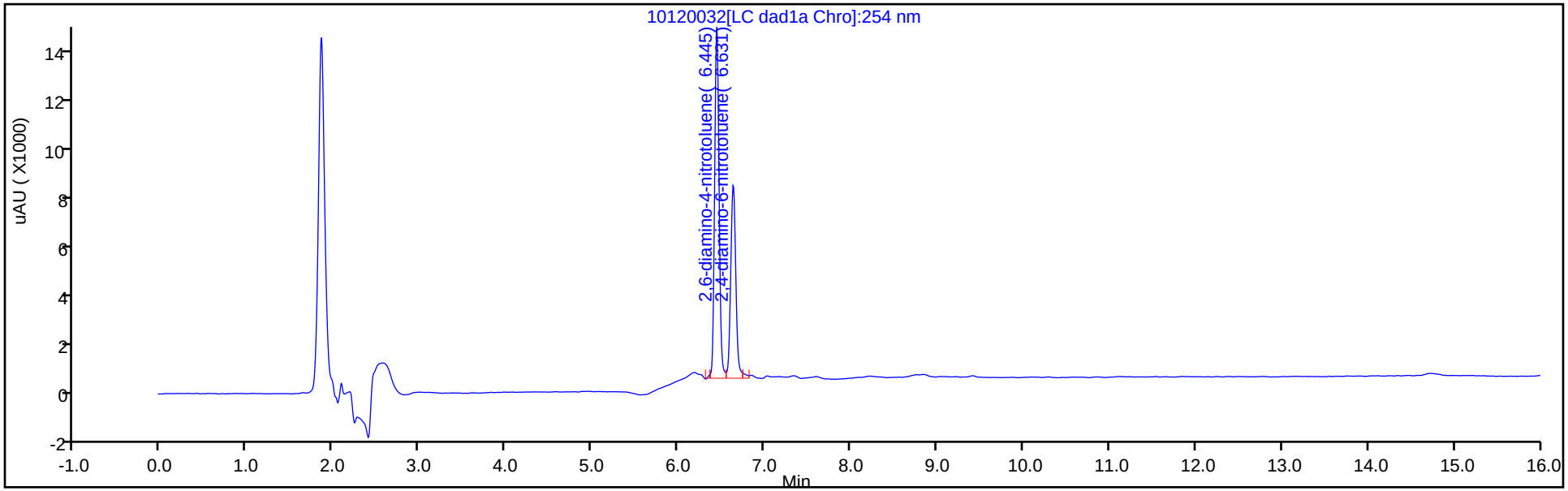
Report Date: 13-Oct-2023 09:16:32 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

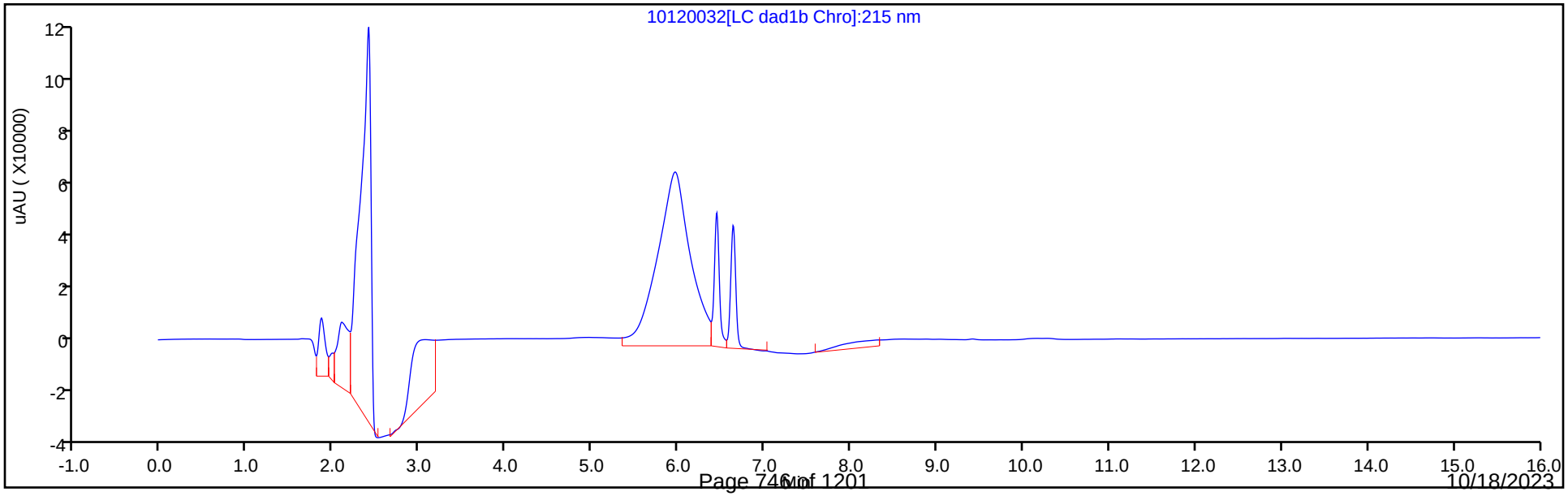
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120032.d

Injection Date:	12-Oct-2023 22:08:13	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	32
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

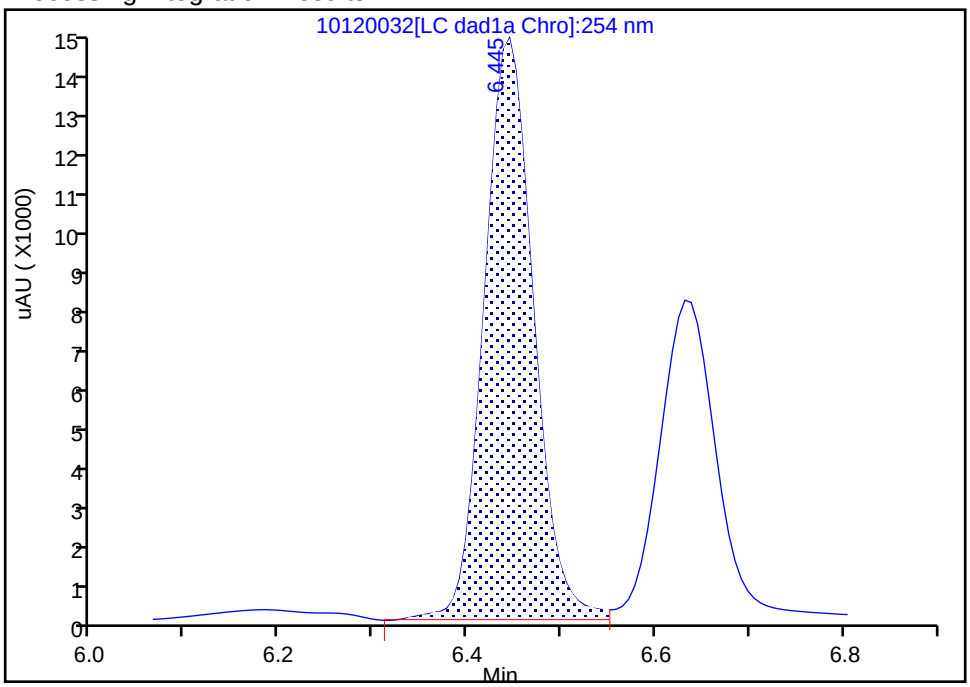
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120032.d				
Injection Date:	12-Oct-2023 22:08:13	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

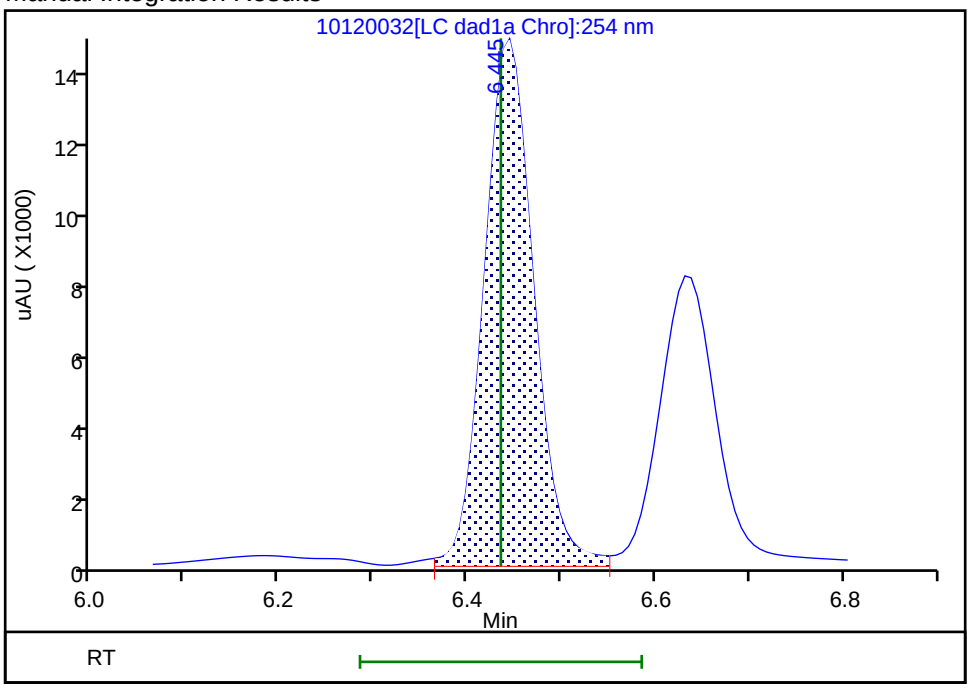
Processing Integration Results

RT: 6.44
Area: 49934
Amount: 0.221373
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 49885
Amount: 0.221156
Amount Units: ug/mL



Reviewer: K8YG, 13-Oct-2023 08:36:58 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

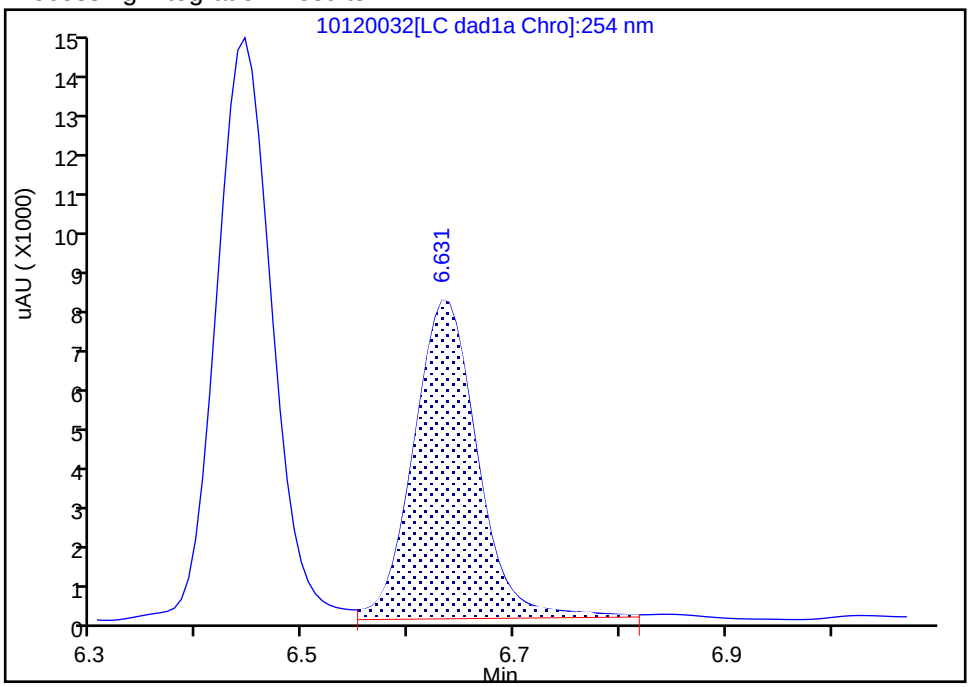
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120032.d				
Injection Date:	12-Oct-2023 22:08:13	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	32
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

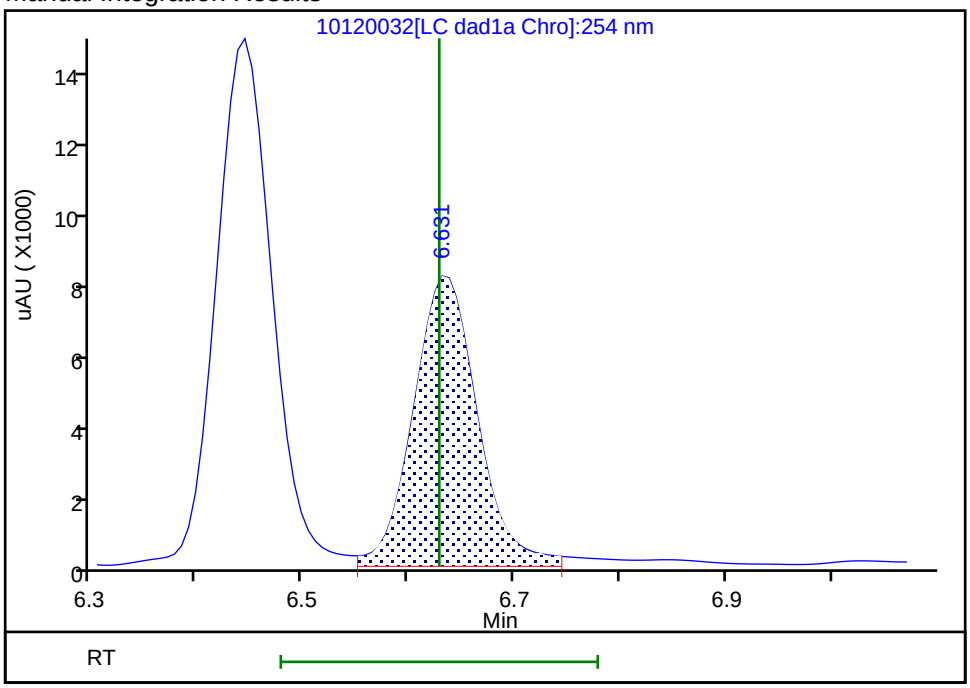
Processing Integration Results

RT: 6.63
Area: 31141
Amount: 0.217274
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 31341
Amount: 0.218669
Amount Units: ug/mL



Reviewer: K8YG, 13-Oct-2023 08:37:01 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/33 Calibration Date: 10/12/2023 22:31

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10120033.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	201611		252	251	0.4	20.0
HMX	Ave	94255	93888		249	250	-0.4	20.0
DNX	Ave	144493	149638		259	250	3.6	20.0
MNX	Ave	138689	139455		293	292	0.6	20.0
RDX	Ave	110493	108376		245	250	-1.9	20.0
Picric acid	Ave	77863	77276		248	250	-0.8	20.0
1,3,5-Trinitrobenzene	Ave	216079	222284		257	250	2.9	20.0
1,3-Dinitrobenzene	Ave	293347	295320		252	250	0.7	20.0
Nitrobenzene	Ave	192696	186404		242	250	-3.3	20.0
3,5-Dinitroaniline	Lin2		212536		237	250	-5.4	20.0
Tetryl	Ave	167257	177140		265	250	5.9	20.0
Nitroglycerin	Ave	64651	68418		2650	2500	5.8	20.0
2,4,6-Trinitrotoluene	Ave	204902	206804		252	250	0.9	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	150440		251	250	0.6	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	192332		248	250	-0.7	20.0
2,6-Dinitrotoluene	Ave	142638	143572		252	250	0.7	20.0
2,4-Dinitrotoluene	Ave	295706	297472		251	250	0.6	20.0
2-Nitrotoluene	Ave	126123	120916		240	250	-4.1	20.0
4-Nitrotoluene	Ave	110088	104264		237	250	-5.3	20.0
3-Nitrotoluene	Lin2		132272		240	250	-4.0	20.0
PETN	Ave	72018	74453		2580	2500	3.4	20.0
1,2-Dinitrobenzene	Ave	123911	128548		259	250	3.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629481/33 Calibration Date: 10/12/2023 22:31

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10120033.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.45	6.34	6.54
HMX	6.57	6.42	6.72
DNX	6.77	6.67	6.87
MNX	7.20	7.04	7.34
RDX	7.58	7.42	7.72
Picric acid	7.95	7.79	8.09
1,3,5-Trinitrobenzene	8.65	8.49	8.79
1,3-Dinitrobenzene	9.26	9.09	9.39
Nitrobenzene	9.63	9.46	9.76
3,5-Dinitroaniline	9.85	9.67	9.97
Tetryl	9.99	9.81	10.11
Nitroglycerin	10.43	10.25	10.55
2,4,6-Trinitrotoluene	10.87	10.74	10.94
4-Amino-2,6-dinitrotoluene	11.05	10.91	11.11
2-Amino-4,6-dinitrotoluene	11.29	11.16	11.36
2,6-Dinitrotoluene	11.45	11.32	11.52
2,4-Dinitrotoluene	11.62	11.48	11.68
2-Nitrotoluene	12.43	12.23	12.53
4-Nitrotoluene	12.84	12.64	12.94
3-Nitrotoluene	13.40	13.20	13.50
PETN	14.53	14.31	14.61
1,2-Dinitrobenzene	8.53	8.36	8.66

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120033.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 12-Oct-2023 22:31:10 ALS Bottle#: 7 Worklist Smp#: 33
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: K8YG Date: 13-Oct-2023 08:39:48

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.445	6.443	0.002	50554	0.2508	0.2518	M
4 HMX	1	6.572	6.570	0.002	23472	0.2500	0.2490	M
6 DNX	1	6.772	6.770	0.002	37447	0.2503	0.2592	M
7 MNX	1	7.199	7.190	0.009	40686	0.2918	0.2934	
8 RDX	1	7.579	7.570	0.009	27094	0.2500	0.2452	
9 2,4,6-Trinitrophenol	1	7.952	7.943	0.009	19319	0.2500	0.2481	
$ 10 1,2-Dinitrobenzene	1	8.525	8.510	0.015	32137	0.2500	0.2594	
11 1,3,5-Trinitrobenzene	1	8.652	8.637	0.015	55571	0.2500	0.2572	
12 1,3-Dinitrobenzene	1	9.258	9.243	0.015	73830	0.2500	0.2517	
13 Nitrobenzene	1	9.632	9.610	0.022	46601	0.2500	0.2418	
14 3,5-Dinitroaniline	1	9.852	9.823	0.029	53134	0.2500	0.2365	
15 Tetryl	1	9.985	9.956	0.029	44285	0.2500	0.2648	
16 Nitroglycerin	2	10.432	10.403	0.029	171045	2.50	2.65	
17 2,4,6-Trinitrotoluene	1	10.865	10.836	0.029	51701	0.2500	0.2523	
18 4-Amino-2,6-dinitrotoluene	1	11.045	11.010	0.035	37610	0.2500	0.2515	
19 2-Amino-4,6-dinitrotoluene	1	11.292	11.256	0.036	48083	0.2500	0.2482	
20 2,6-Dinitrotoluene	1	11.452	11.416	0.036	35893	0.2500	0.2516	
21 2,4-Dinitrotoluene	1	11.618	11.583	0.035	74368	0.2500	0.2515	
22 o-Nitrotoluene	1	12.425	12.383	0.042	30229	0.2500	0.2397	
23 p-Nitrotoluene	1	12.838	12.790	0.048	26066	0.2500	0.2368	
24 m-Nitrotoluene	1	13.398	13.350	0.048	33068	0.2500	0.2400	
25 PETN	2	14.532	14.463	0.069	186132	2.50	2.58	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL

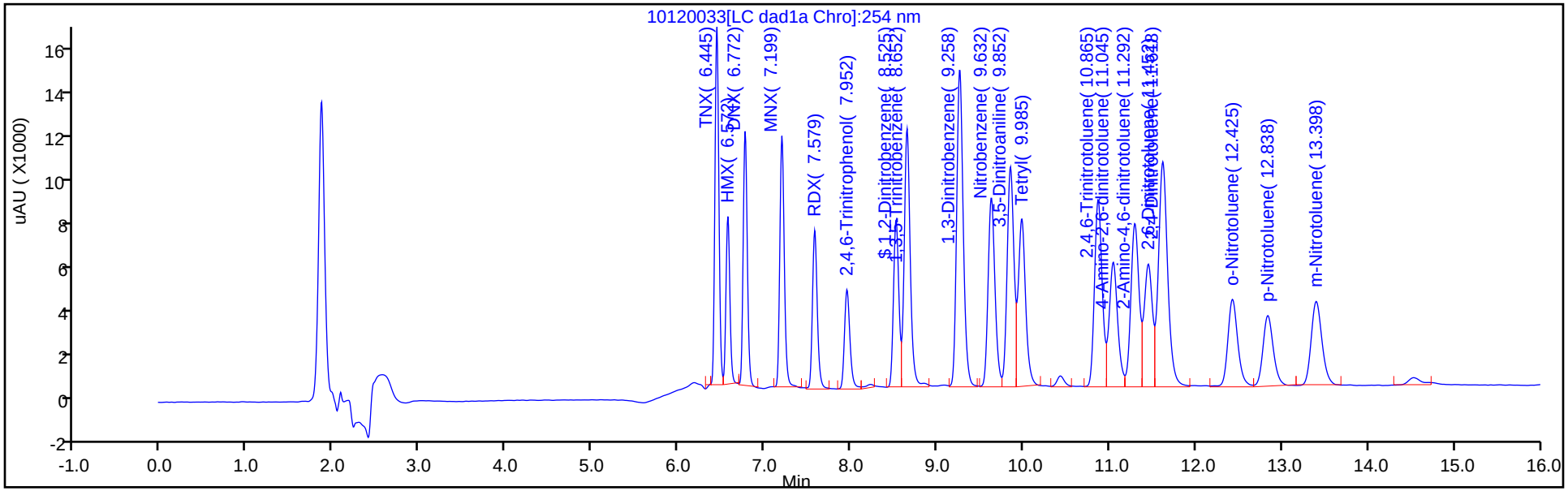
Report Date: 13-Oct-2023 09:16:33 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

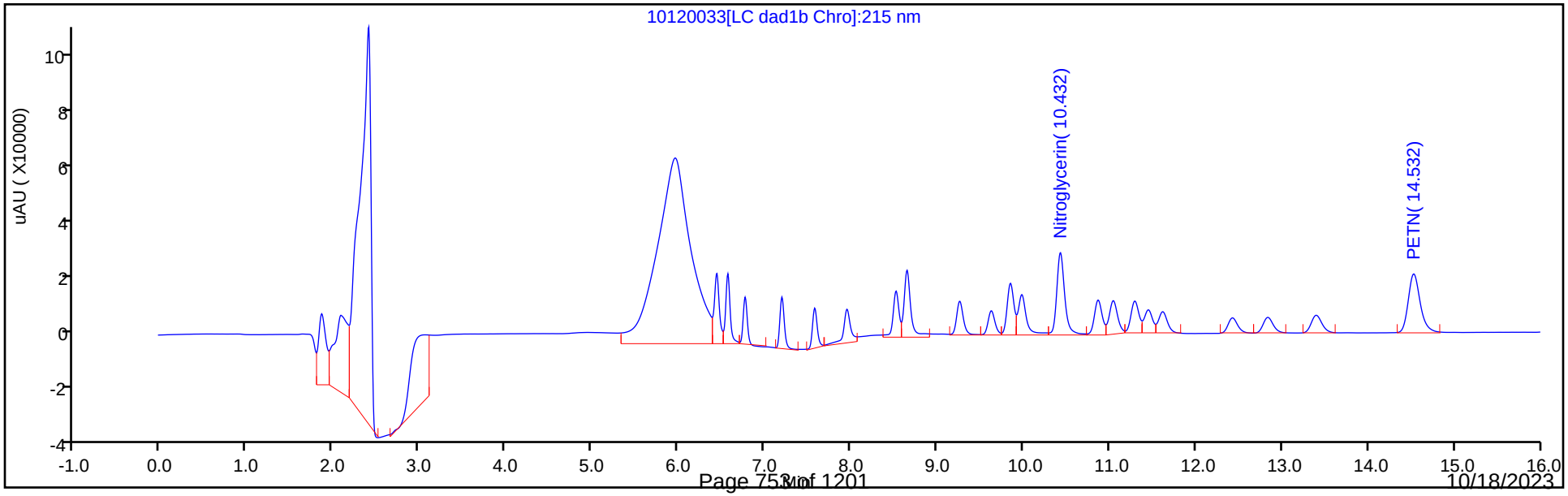
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120033.d

Injection Date:	12-Oct-2023 22:31:10	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	33
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

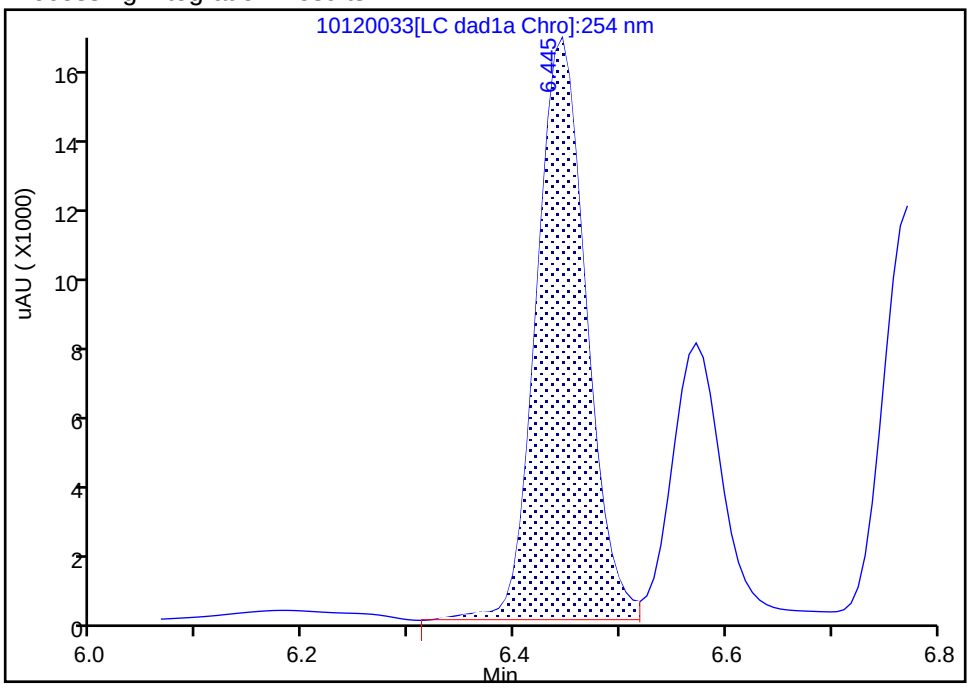
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120033.d				
Injection Date:	12-Oct-2023 22:31:10	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

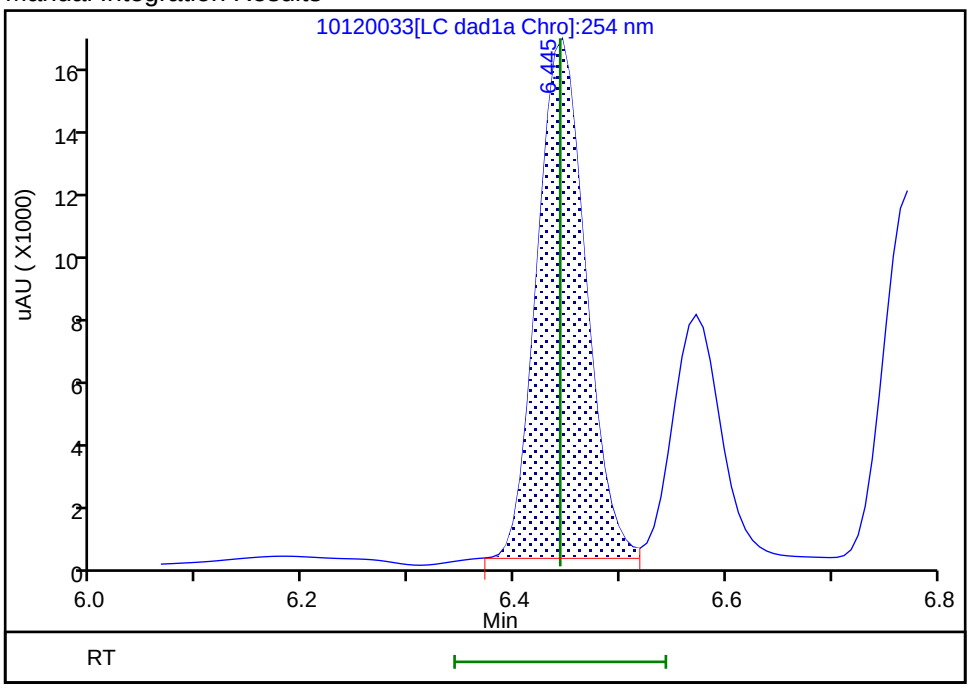
Processing Integration Results

RT: 6.45
Area: 52876
Amount: 0.263378
Amount Units: ug/mL



Manual Integration Results

RT: 6.45
Area: 50554
Amount: 0.251812
Amount Units: ug/mL



Reviewer: K8YG, 13-Oct-2023 08:39:33 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

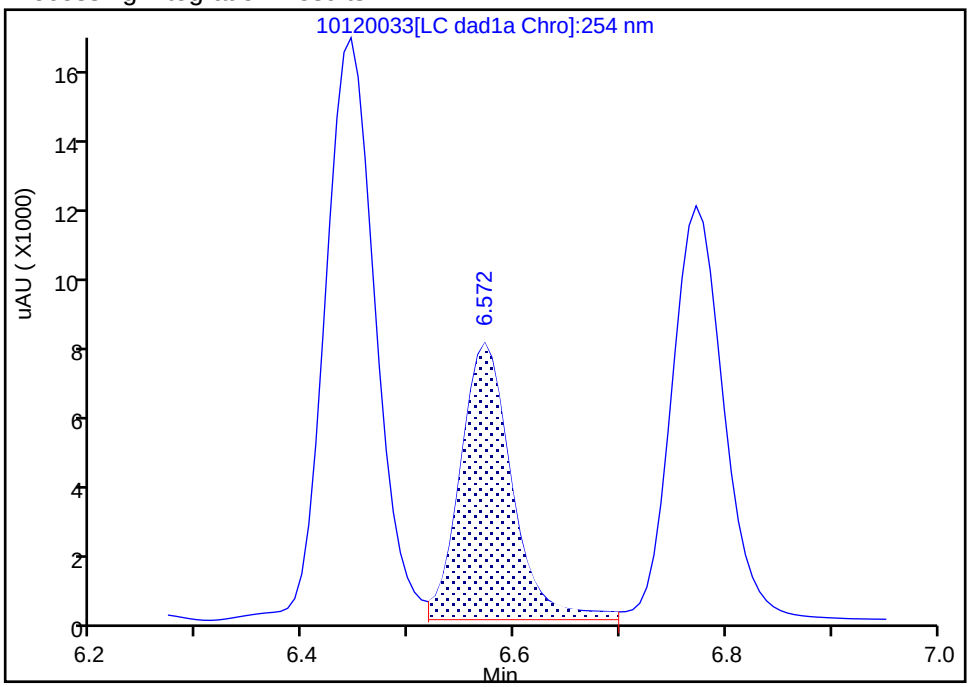
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120033.d				
Injection Date:	12-Oct-2023 22:31:10	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

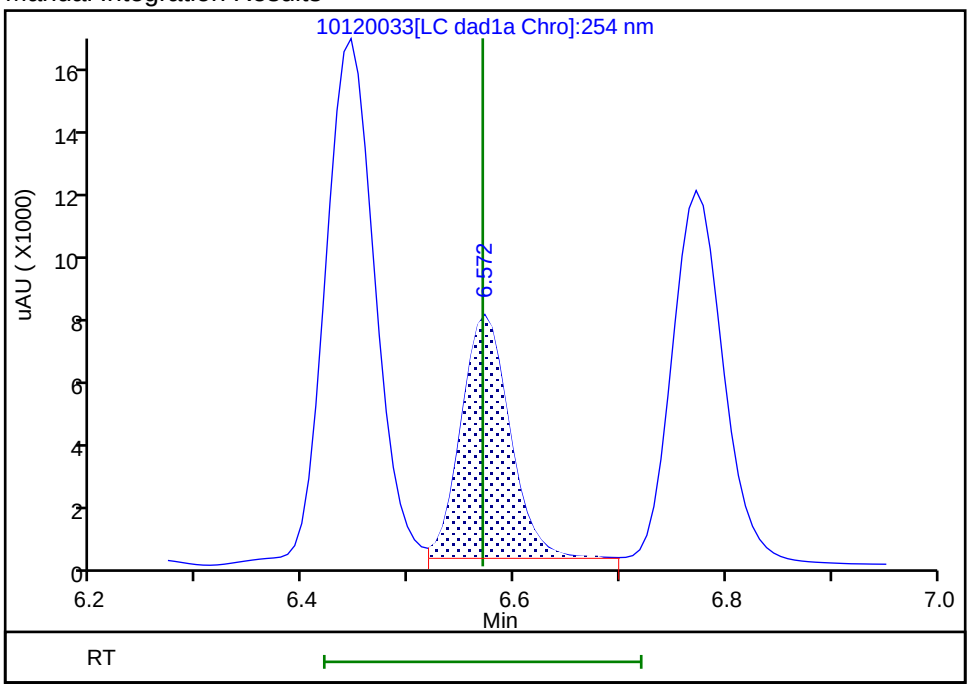
Processing Integration Results

RT: 6.57
Area: 25848
Amount: 0.274234
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 23472
Amount: 0.249026
Amount Units: ug/mL



Reviewer: K8YG, 13-Oct-2023 08:39:27 -06:00:00 (UTC)
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

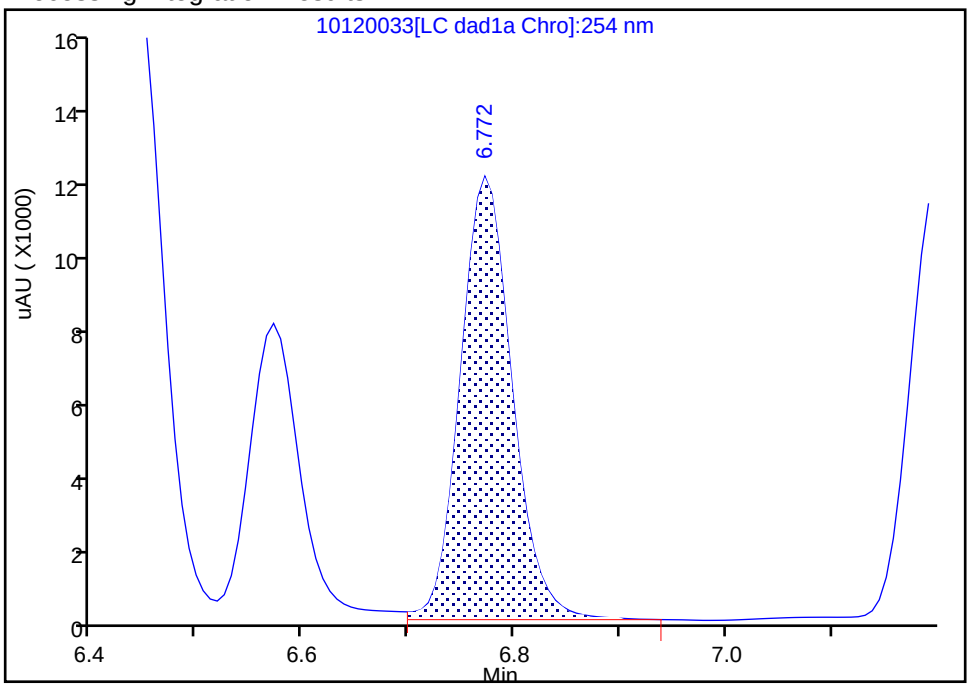
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120033.d				
Injection Date:	12-Oct-2023 22:31:10	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	33
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

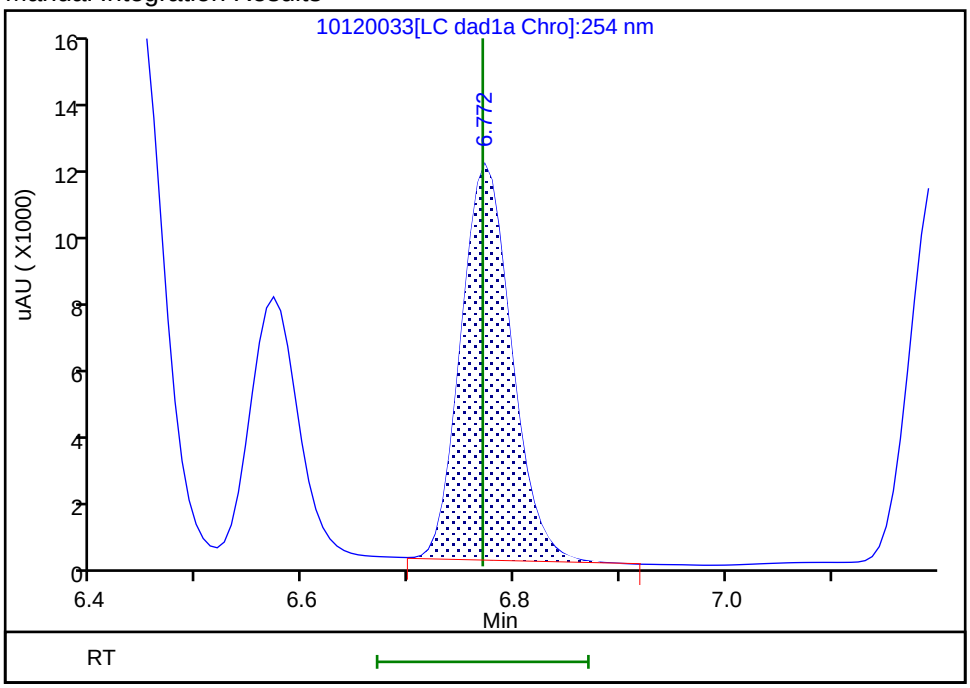
Processing Integration Results

RT: 6.77
Area: 39013
Amount: 0.270000
Amount Units: ug/mL



Manual Integration Results

RT: 6.77
Area: 37447
Amount: 0.259162
Amount Units: ug/mL



Reviewer: K8YG, 13-Oct-2023 08:39:37 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629671/8 | Calibration Date: 10/13/2023 14:34

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/23/2023 20:57

Lab File ID: 10130008.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	204319		255	251	1.8	20.0
HMX	Ave	94255	94396		250	250	0.1	20.0
DNX	Ave	144493	146765		254	250	1.6	20.0
MNX	Ave	138689	136507		287	292	-1.6	20.0
RDX	Ave	110493	103972		235	250	-5.9	20.0
Picric acid	Ave	77863	74016		238	250	-4.9	20.0
1,3,5-Trinitrobenzene	Ave	216079	211684		245	250	-2.0	20.0
1,3-Dinitrobenzene	Ave	293347	285328		243	250	-2.7	20.0
Nitrobenzene	Ave	192696	185032		240	250	-4.0	20.0
3,5-Dinitroaniline	Lin2		208924		233	250	-7.0	20.0
Tetryl	Ave	167257	167288		250	250	0.0	20.0
Nitroglycerin	Ave	64651	63913		2470	2500	-1.1	20.0
2,4,6-Trinitrotoluene	Ave	204902	196488		240	250	-4.1	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	148552		248	250	-0.7	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	187052		241	250	-3.4	20.0
2,6-Dinitrotoluene	Ave	142638	138448		243	250	-2.9	20.0
2,4-Dinitrotoluene	Ave	295706	285368		241	250	-3.5	20.0
2-Nitrotoluene	Ave	126123	120132		238	250	-4.8	20.0
4-Nitrotoluene	Ave	110088	102524		233	250	-6.9	20.0
3-Nitrotoluene	Lin2		131732		239	250	-4.4	20.0
PETN	Ave	72018	71927		2500	2500	-0.1	20.0
1,2-Dinitrobenzene	Ave	123911	121864		246	250	-1.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629671/8 Calibration Date: 10/13/2023 14:34

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/23/2023 20:57

Lab File ID: 10130008.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.44	6.34	6.54
HMX	6.58	6.43	6.73
DNX	6.78	6.68	6.88
MNX	7.20	7.05	7.35
RDX	7.58	7.43	7.73
Picric acid	7.96	7.81	8.11
1,3,5-Trinitrobenzene	8.65	8.50	8.80
1,3-Dinitrobenzene	9.26	9.11	9.41
Nitrobenzene	9.63	9.48	9.78
3,5-Dinitroaniline	9.85	9.70	10.00
Tetryl	9.98	9.83	10.13
Nitroglycerin	10.43	10.28	10.58
2,4,6-Trinitrotoluene	10.87	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.04	10.94	11.14
2-Amino-4,6-dinitrotoluene	11.30	11.20	11.40
2,6-Dinitrotoluene	11.46	11.36	11.56
2,4-Dinitrotoluene	11.62	11.52	11.72
2-Nitrotoluene	12.43	12.28	12.58
4-Nitrotoluene	12.84	12.69	12.99
3-Nitrotoluene	13.40	13.25	13.55
PETN	14.54	14.39	14.69
1,2-Dinitrobenzene	8.52	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231013-126501.b\10130008.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 13-Oct-2023 14:34:37 ALS Bottle#: 7 Worklist Smp#: 8
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231013-126501.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 13:59:17 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 13-Oct-2023 18:51:11

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.444	6.444	0.000	51233	0.2508	0.2552	M
4 HMX	1	6.577	6.577	0.000	23599	0.2500	0.2504	M
6 DNX	1	6.777	6.777	0.000	36728	0.2503	0.2542	M
7 MNX	1	7.204	7.204	0.000	39826	0.2918	0.2872	
8 RDX	1	7.584	7.584	0.000	25993	0.2500	0.2352	
9 2,4,6-Trinitrophenol	1	7.957	7.957	0.000	18504	0.2500	0.2376	
$ 10 1,2-Dinitrobenzene	1	8.524	8.524	0.000	30466	0.2500	0.2459	
11 1,3,5-Trinitrobenzene	1	8.650	8.650	0.000	52921	0.2500	0.2449	
12 1,3-Dinitrobenzene	1	9.264	9.264	0.000	71332	0.2500	0.2432	
13 Nitrobenzene	1	9.630	9.630	0.000	46258	0.2500	0.2401	
14 3,5-Dinitroaniline	1	9.850	9.850	0.000	52231	0.2500	0.2325	
15 Tetryl	1	9.984	9.984	0.000	41822	0.2500	0.2500	
16 Nitroglycerin	2	10.430	10.430	0.000	159782	2.50	2.47	
17 2,4,6-Trinitrotoluene	1	10.870	10.870	0.000	49122	0.2500	0.2397	
18 4-Amino-2,6-dinitrotoluene	1	11.044	11.044	0.000	37138	0.2500	0.2483	
19 2-Amino-4,6-dinitrotoluene	1	11.297	11.297	0.000	46763	0.2500	0.2414	
20 2,6-Dinitrotoluene	1	11.457	11.457	0.000	34612	0.2500	0.2427	
21 2,4-Dinitrotoluene	1	11.624	11.624	0.000	71342	0.2500	0.2413	
22 o-Nitrotoluene	1	12.430	12.430	0.000	30033	0.2500	0.2381	
23 p-Nitrotoluene	1	12.844	12.844	0.000	25631	0.2500	0.2328	
24 m-Nitrotoluene	1	13.404	13.404	0.000	32933	0.2500	0.2390	
25 PETN	2	14.537	14.537	0.000	179817	2.50	2.50	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL

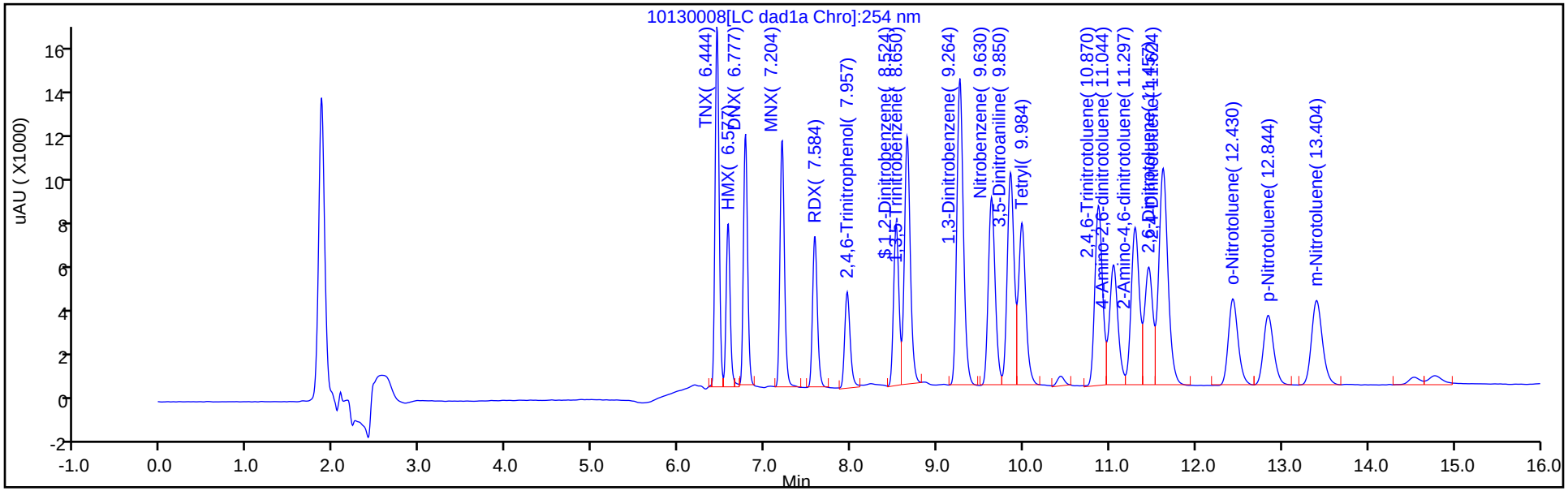
Report Date: 14-Oct-2023 13:59:17 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

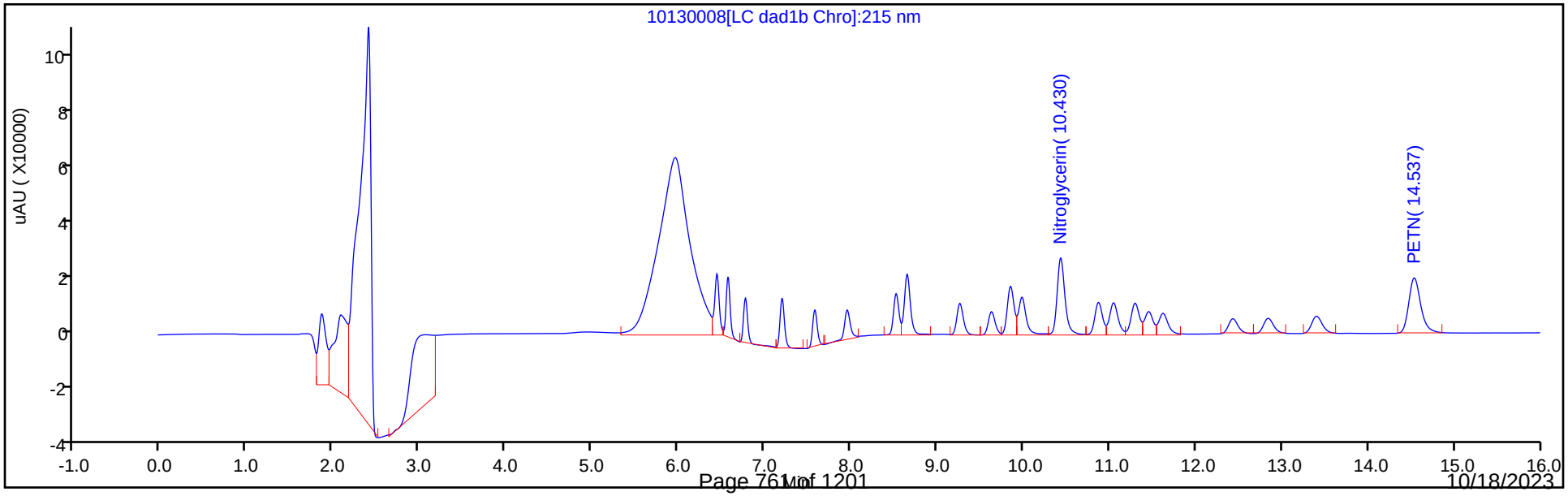
Data File: \\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130008.d

Injection Date:	13-Oct-2023 14:34:37	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	8
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

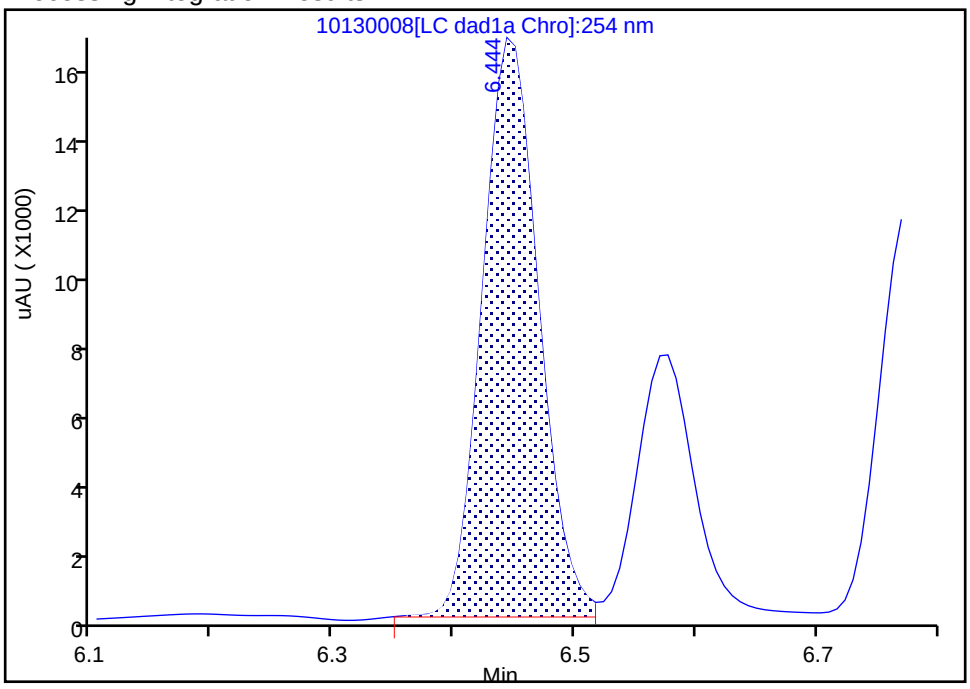
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130008.d				
Injection Date:	13-Oct-2023 14:34:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

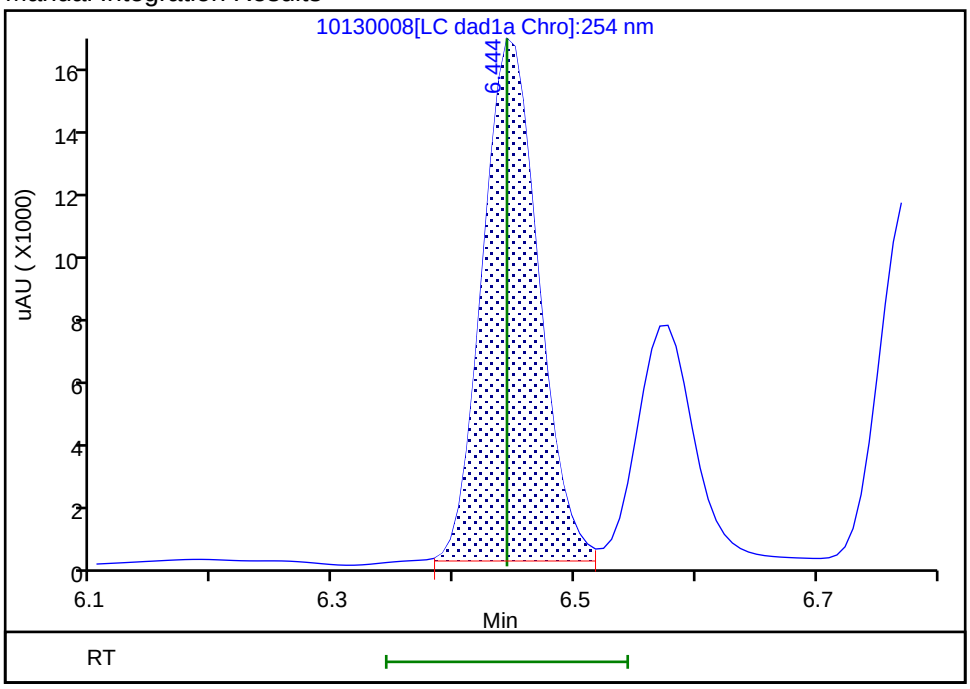
Processing Integration Results

RT: 6.44
Area: 51330
Amount: 0.255677
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 51233
Amount: 0.255194
Amount Units: ug/mL



Reviewer: LV5D, 13-Oct-2023 18:51:05 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

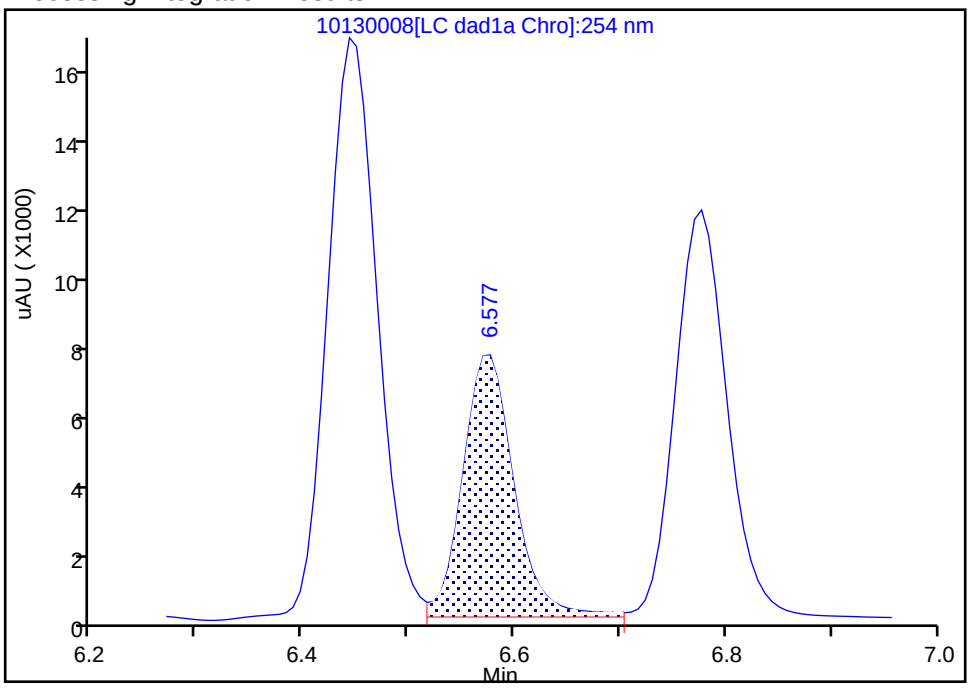
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130008.d				
Injection Date:	13-Oct-2023 14:34:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

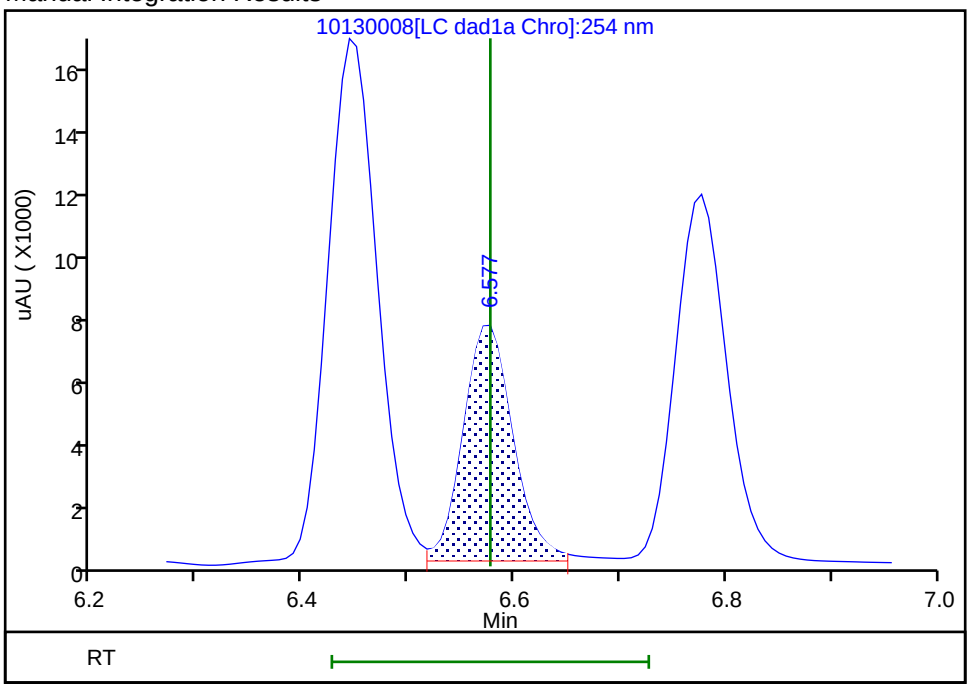
Processing Integration Results

RT: 6.58
Area: 24095
Amount: 0.255635
Amount Units: ug/mL



Manual Integration Results

RT: 6.58
Area: 23599
Amount: 0.250373
Amount Units: ug/mL



Reviewer: LV5D, 13-Oct-2023 18:51:06 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

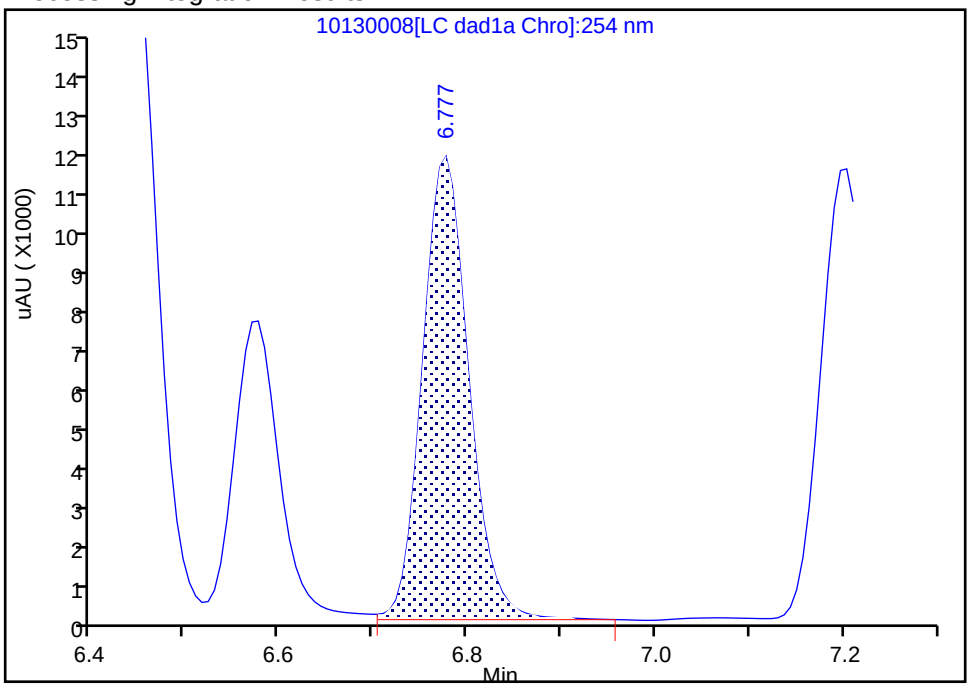
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130008.d				
Injection Date:	13-Oct-2023 14:34:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	8
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

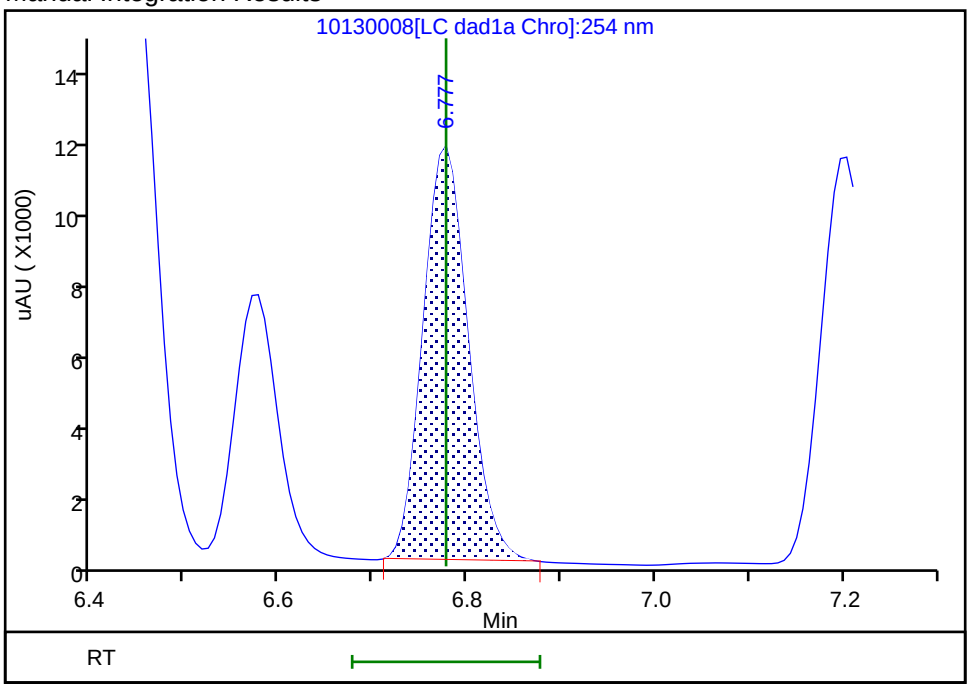
Processing Integration Results

RT: 6.78
Area: 37992
Amount: 0.262934
Amount Units: ug/mL



Manual Integration Results

RT: 6.78
Area: 36728
Amount: 0.254186
Amount Units: ug/mL



Reviewer: LV5D, 13-Oct-2023 18:51:09 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629671/9 Calibration Date: 10/13/2023 14:57

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10130009.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	217488		241	250	-3.6	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	132544		231	250	-7.5	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629671/9 Calibration Date: 10/13/2023 14:57

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10130009.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.44	6.29	6.59
2,4-diamino-6-nitrotoluene	6.63	6.48	6.78

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231013-126501.b\10130009.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 13-Oct-2023 14:57:37 ALS Bottle#: 8 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231013-126501.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 13:59:17 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 13-Oct-2023 18:51:20

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.443	6.443	0.000	54372	0.2500	0.2410	M
5 2,4-diamino-6-nitrotoluene	1	6.630	6.630	0.000	33136	0.2500	0.2312	M

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

8330_ADDs_00038 Amount Added: 12.50 Units: uL

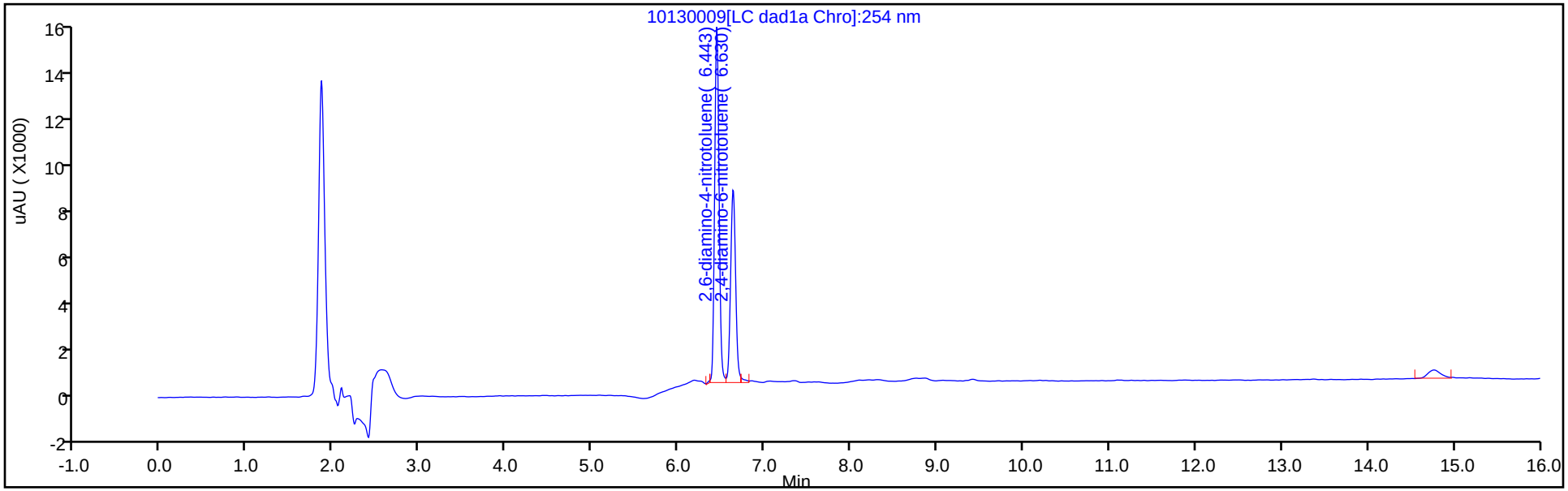
Report Date: 14-Oct-2023 13:59:17 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

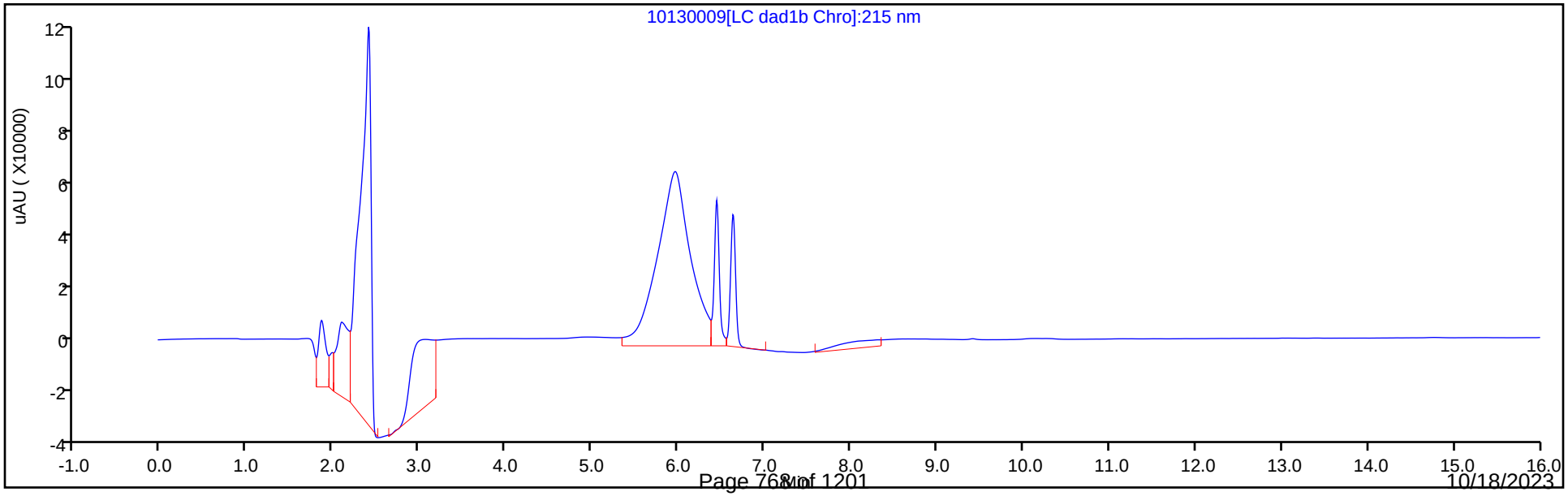
Data File: \\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130009.d

Injection Date:	13-Oct-2023 14:57:37	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver

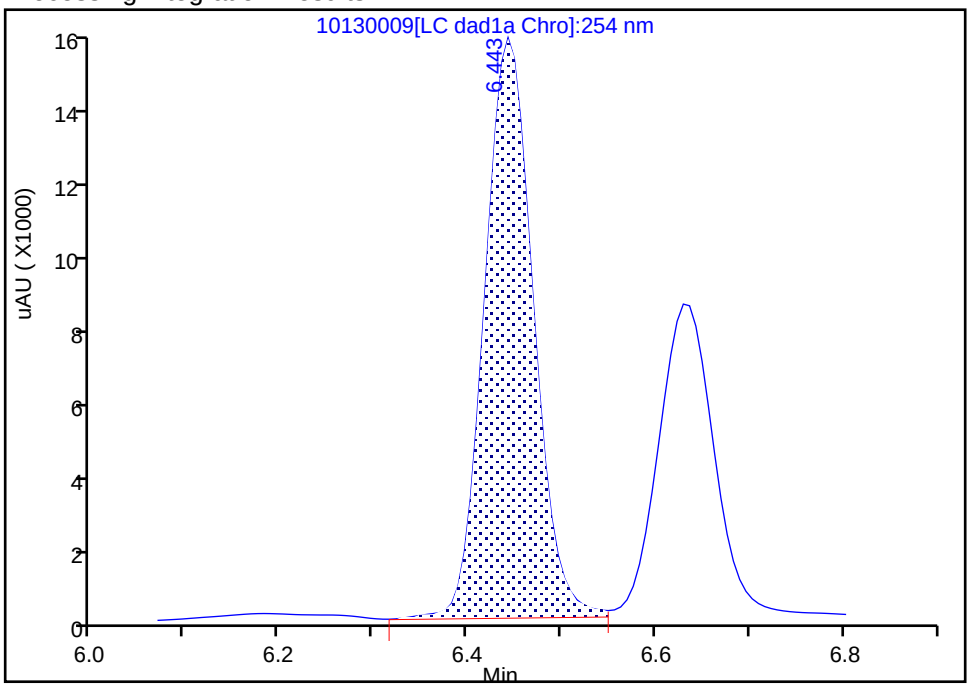
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130009.d				
Injection Date:	13-Oct-2023 14:57:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

2 2,6-diamino-4-nitrotoluene, CAS: 59229-75-3

Signal: 1

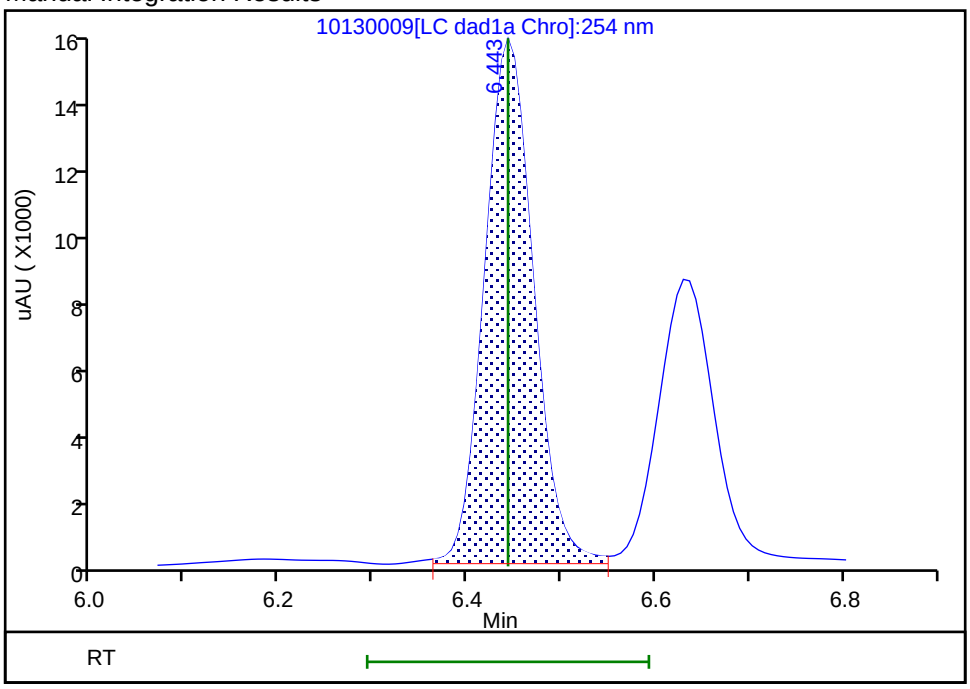
Processing Integration Results

RT: 6.44
Area: 54544
Amount: 0.241810
Amount Units: ug/mL



Manual Integration Results

RT: 6.44
Area: 54372
Amount: 0.241048
Amount Units: ug/mL



Reviewer: LV5D, 13-Oct-2023 18:51:17 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

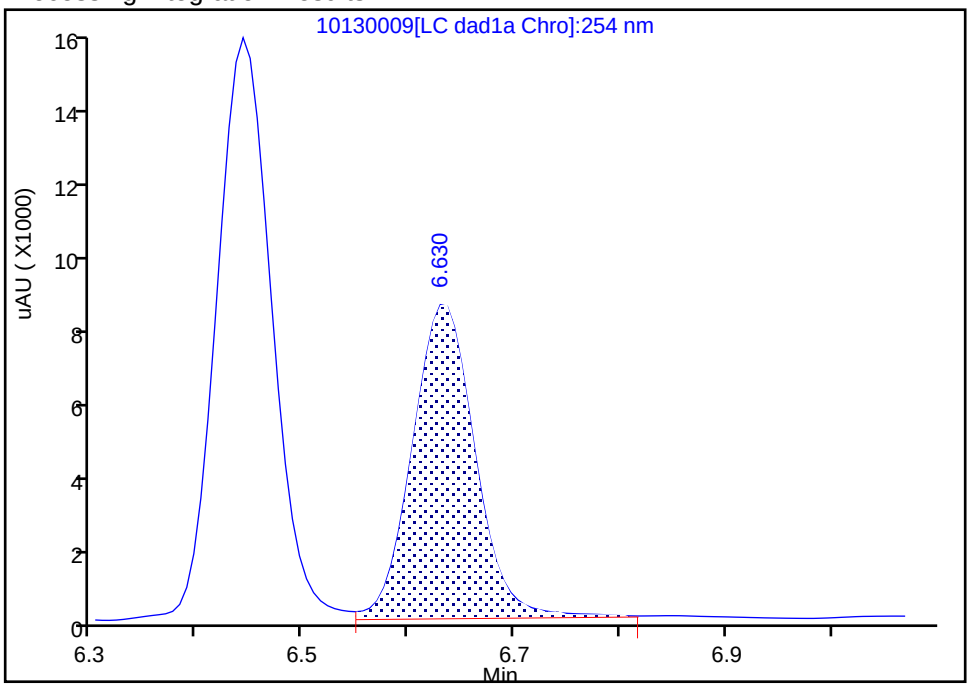
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130009.d				
Injection Date:	13-Oct-2023 14:57:37	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	8	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

5 2,4-diamino-6-nitrotoluene, CAS: 6629-29-4

Signal: 1

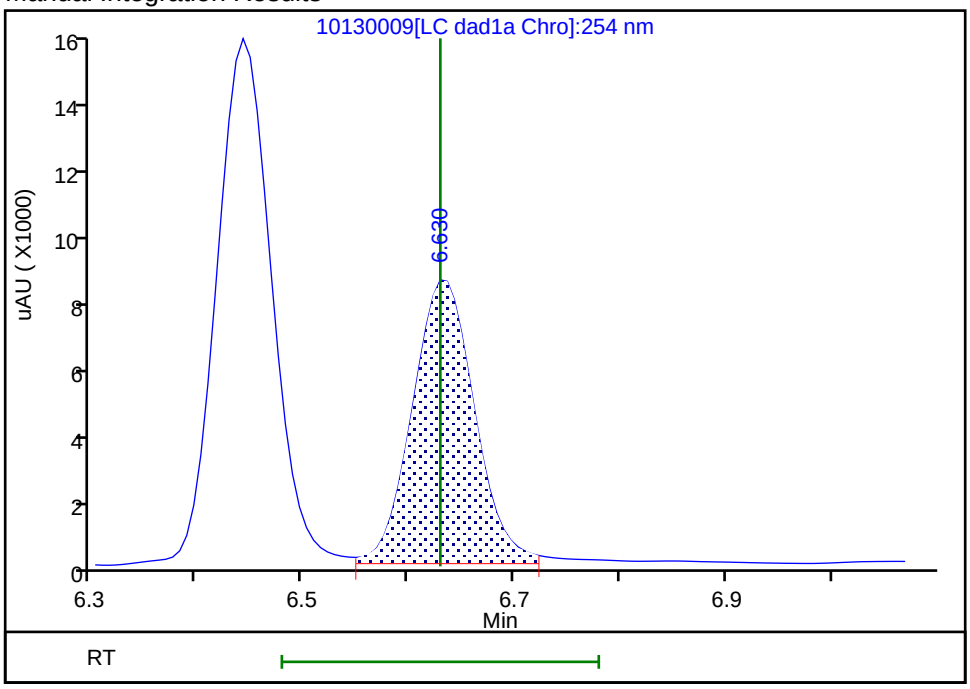
Processing Integration Results

RT: 6.63
Area: 33668
Amount: 0.234905
Amount Units: ug/mL



Manual Integration Results

RT: 6.63
Area: 33136
Amount: 0.231193
Amount Units: ug/mL



Reviewer: LV5D, 13-Oct-2023 18:51:19 -06:00:00 (UTC)
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629671/16 | Calibration Date: 10/13/2023 17:15

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/23/2023 20:57

Lab File ID: 10130016.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	200761	199553		249	251	-0.6	20.0
HMX	Ave	94255	89568		238	250	-5.0	20.0
DNX	Ave	144493	146426		254	250	1.3	20.0
MNX	Ave	138689	137313		289	292	-1.0	20.0
RDX	Ave	110493	104404		236	250	-5.5	20.0
Picric acid	Ave	77863	74148		238	250	-4.8	20.0
1,3,5-Trinitrobenzene	Ave	216079	216636		251	250	0.3	20.0
1,3-Dinitrobenzene	Ave	293347	286280		244	250	-2.4	20.0
Nitrobenzene	Ave	192696	183692		238	250	-4.7	20.0
3,5-Dinitroaniline	Lin2		206112		229	250	-8.2	20.0
Tetryl	Ave	167257	169944		254	250	1.6	20.0
Nitroglycerin	Ave	64651	66046		2550	2500	2.2	20.0
2,4,6-Trinitrotoluene	Ave	204902	197736		241	250	-3.5	20.0
4-Amino-2,6-dinitrotoluene	Ave	149560	148848		249	250	-0.5	20.0
2-Amino-4,6-dinitrotoluene	Ave	193716	188156		243	250	-2.9	20.0
2,6-Dinitrotoluene	Ave	142638	139016		244	250	-2.5	20.0
2,4-Dinitrotoluene	Ave	295706	285676		242	250	-3.4	20.0
2-Nitrotoluene	Ave	126123	119580		237	250	-5.2	20.0
4-Nitrotoluene	Ave	110088	102572		233	250	-6.8	20.0
3-Nitrotoluene	Lin2		131180		238	250	-4.8	20.0
PETN	Ave	72018	72238		2510	2500	0.3	20.0
1,2-Dinitrobenzene	Ave	123911	122808		248	250	-0.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629671/16 | Calibration Date: 10/13/2023 17:15

Instrument ID: CHHPLC_X3 | Calib Start Date: 06/23/2023 17:53

GC Column: UltraCarb5uODS ID: 4.60(mm) | Calib End Date: 06/23/2023 20:57

Lab File ID: 10130016.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	6.45	6.34	6.54
HMX	6.57	6.43	6.73
DNX	6.77	6.68	6.88
MNX	7.20	7.05	7.35
RDX	7.58	7.43	7.73
Picric acid	7.95	7.81	8.11
1,3,5-Trinitrobenzene	8.65	8.50	8.80
1,3-Dinitrobenzene	9.26	9.11	9.41
Nitrobenzene	9.63	9.48	9.78
3,5-Dinitroaniline	9.85	9.70	10.00
Tetryl	9.97	9.83	10.13
Nitroglycerin	10.42	10.28	10.58
2,4,6-Trinitrotoluene	10.86	10.77	10.97
4-Amino-2,6-dinitrotoluene	11.03	10.94	11.14
2-Amino-4,6-dinitrotoluene	11.29	11.20	11.40
2,6-Dinitrotoluene	11.44	11.36	11.56
2,4-Dinitrotoluene	11.61	11.52	11.72
2-Nitrotoluene	12.42	12.28	12.58
4-Nitrotoluene	12.83	12.69	12.99
3-Nitrotoluene	13.39	13.25	13.55
PETN	14.51	14.39	14.69
1,2-Dinitrobenzene	8.52	8.37	8.67

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231013-126501.b\10130016.D
Lims ID: CCV DMT
Client ID:
Sample Type: CCV
Inject. Date: 13-Oct-2023 17:15:03 ALS Bottle#: 7 Worklist Smp#: 16
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV DMT
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub27

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231013-126501.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 13:59:13 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 13-Oct-2023 18:54:23

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.446	6.444	0.002	50038	0.2508	0.2492	M
4 HMX	1	6.572	6.577	-0.005	22392	0.2500	0.2376	M
6 DNX	1	6.772	6.777	-0.005	36643	0.2503	0.2536	M
7 MNX	1	7.199	7.204	-0.005	40061	0.2918	0.2889	
8 RDX	1	7.579	7.584	-0.005	26101	0.2500	0.2362	
9 2,4,6-Trinitrophenol	1	7.952	7.957	-0.005	18537	0.2500	0.2381	
$ 10 1,2-Dinitrobenzene	1	8.519	8.524	-0.005	30702	0.2500	0.2478	
11 1,3,5-Trinitrobenzene	1	8.646	8.650	-0.004	54159	0.2500	0.2506	
12 1,3-Dinitrobenzene	1	9.259	9.264	-0.005	71570	0.2500	0.2440	
13 Nitrobenzene	1	9.626	9.630	-0.004	45923	0.2500	0.2383	
14 3,5-Dinitroaniline	1	9.846	9.850	-0.004	51528	0.2500	0.2294	
15 Tetryl	1	9.972	9.984	-0.012	42486	0.2500	0.2540	
16 Nitroglycerin	2	10.419	10.430	-0.011	165116	2.50	2.55	
17 2,4,6-Trinitrotoluene	1	10.859	10.870	-0.011	49434	0.2500	0.2413	
18 4-Amino-2,6-dinitrotoluene	1	11.032	11.044	-0.012	37212	0.2500	0.2488	
19 2-Amino-4,6-dinitrotoluene	1	11.286	11.297	-0.011	47039	0.2500	0.2428	
20 2,6-Dinitrotoluene	1	11.439	11.457	-0.018	34754	0.2500	0.2437	
21 2,4-Dinitrotoluene	1	11.612	11.624	-0.012	71419	0.2500	0.2415	
22 o-Nitrotoluene	1	12.419	12.430	-0.011	29895	0.2500	0.2370	
23 p-Nitrotoluene	1	12.826	12.844	-0.018	25643	0.2500	0.2329	
24 m-Nitrotoluene	1	13.386	13.404	-0.018	32795	0.2500	0.2380	
25 PETN	2	14.512	14.537	-0.025	180596	2.50	2.51	

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL

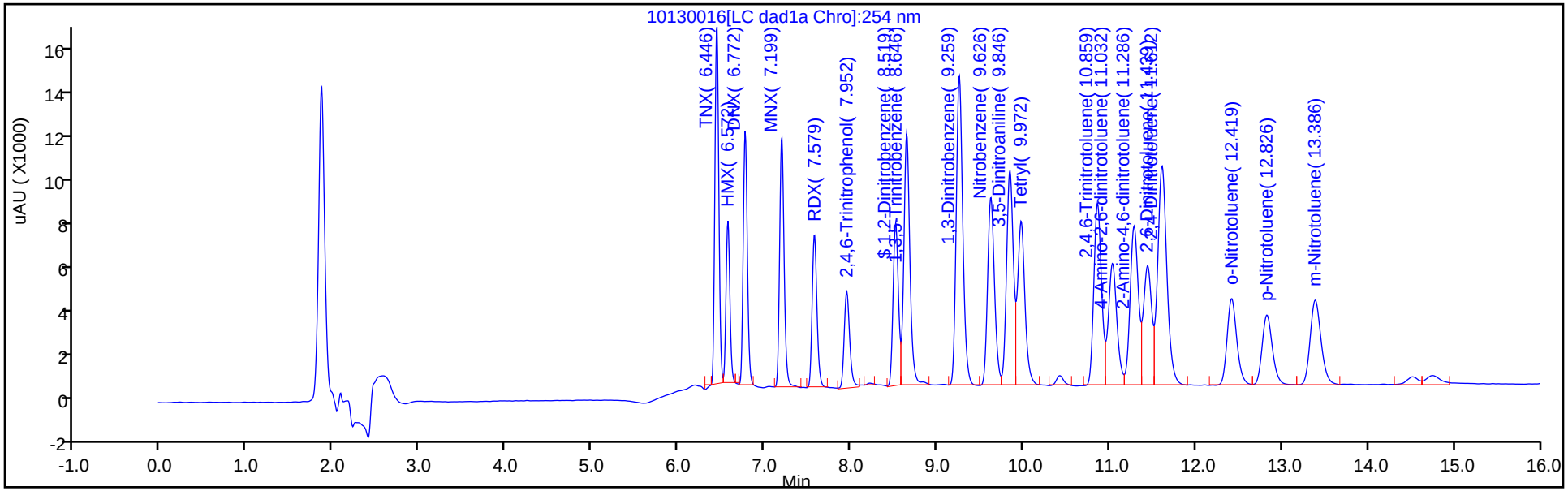
Report Date: 14-Oct-2023 13:59:13 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

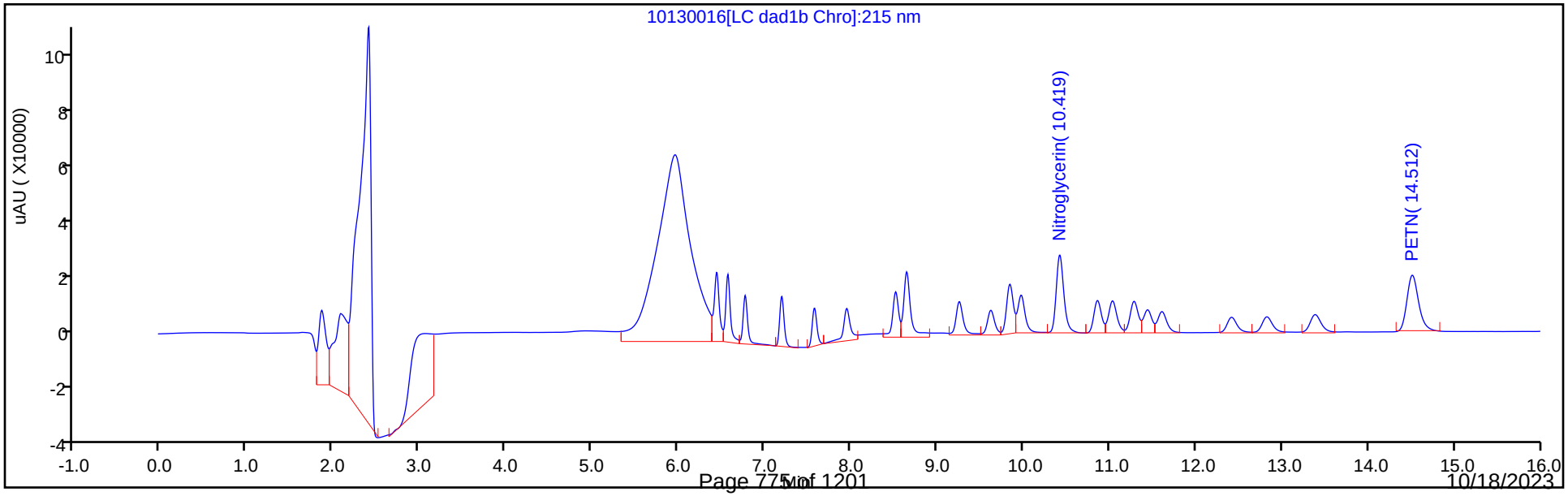
Data File: \\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130016.d

Injection Date:	13-Oct-2023 17:15:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV DMT			Worklist Smp#:	16
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

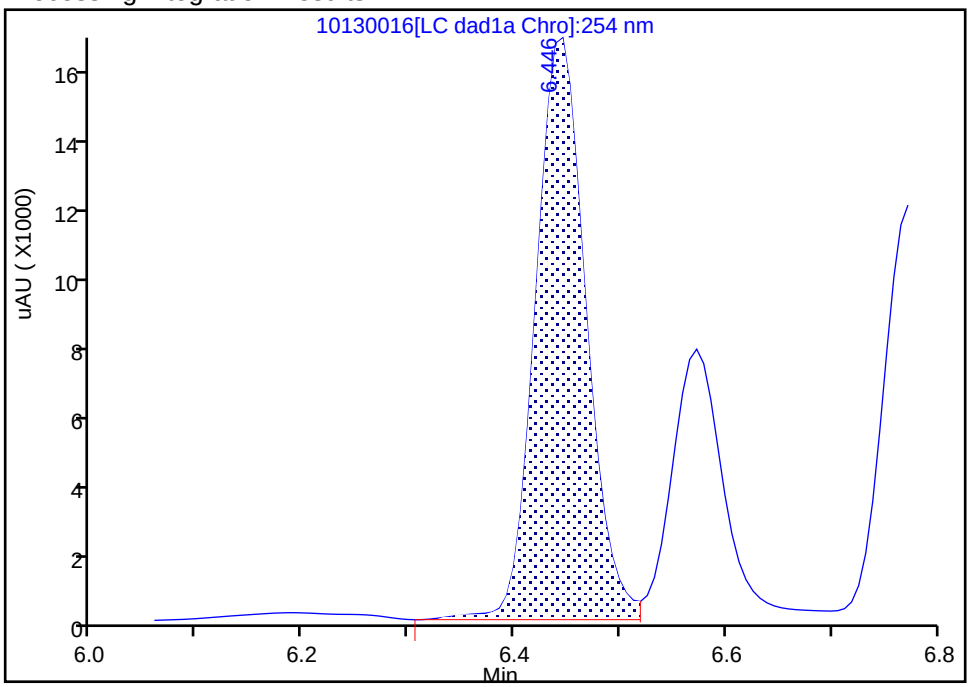
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130016.d				
Injection Date:	13-Oct-2023 17:15:03	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

3 TNX, CAS: 13980-04-6

Signal: 1

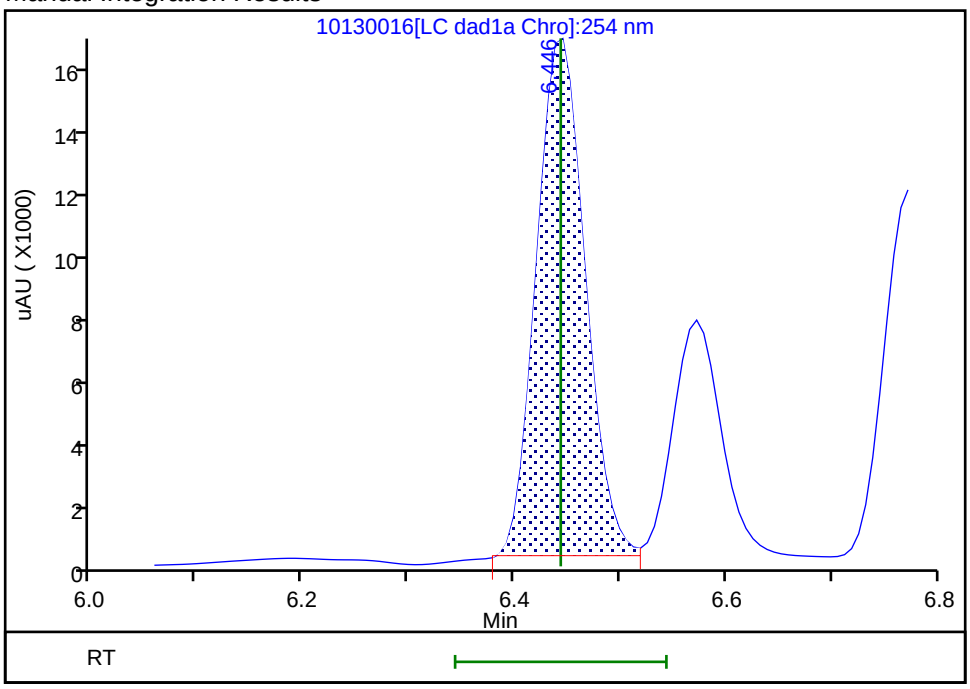
Processing Integration Results

RT: 6.45
Area: 52508
Amount: 0.261545
Amount Units: ug/mL



Manual Integration Results

RT: 6.45
Area: 50038
Amount: 0.249242
Amount Units: ug/mL



Reviewer: LV5D, 13-Oct-2023 18:54:19 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

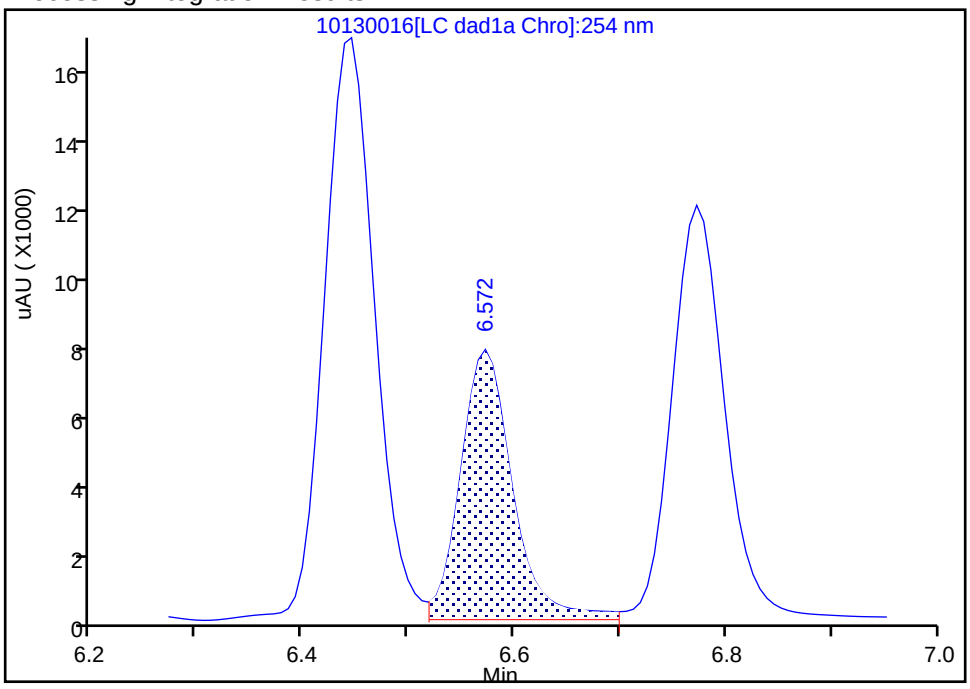
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130016.d				
Injection Date:	13-Oct-2023 17:15:03	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

4 HMX, CAS: 2691-41-0

Signal: 1

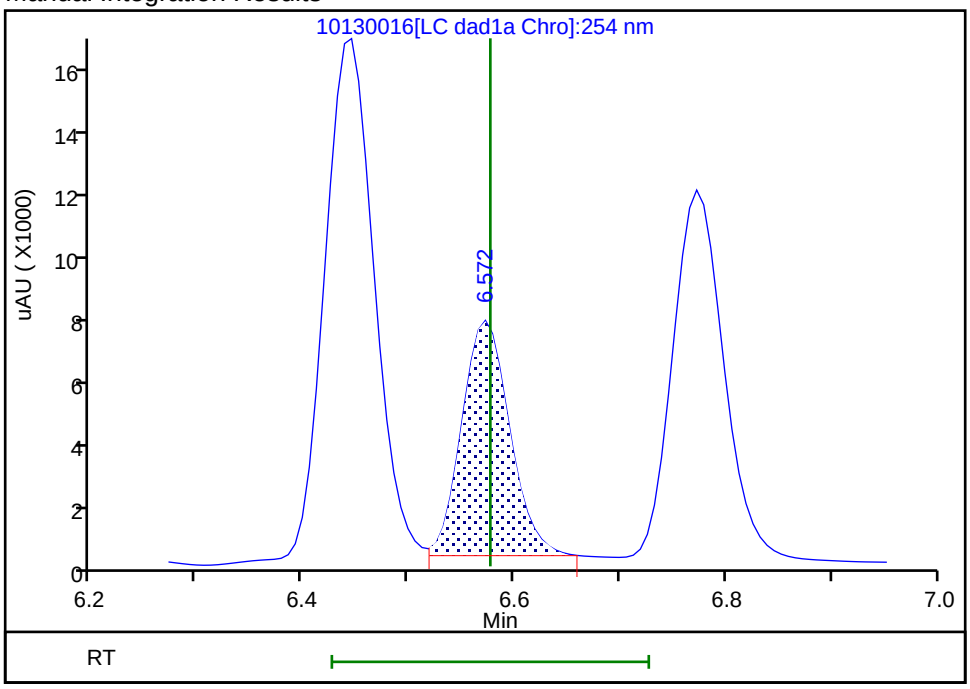
Processing Integration Results

RT: 6.57
Area: 24983
Amount: 0.265057
Amount Units: ug/mL



Manual Integration Results

RT: 6.57
Area: 22392
Amount: 0.237567
Amount Units: ug/mL



Reviewer: LV5D, 13-Oct-2023 18:54:19 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Denver

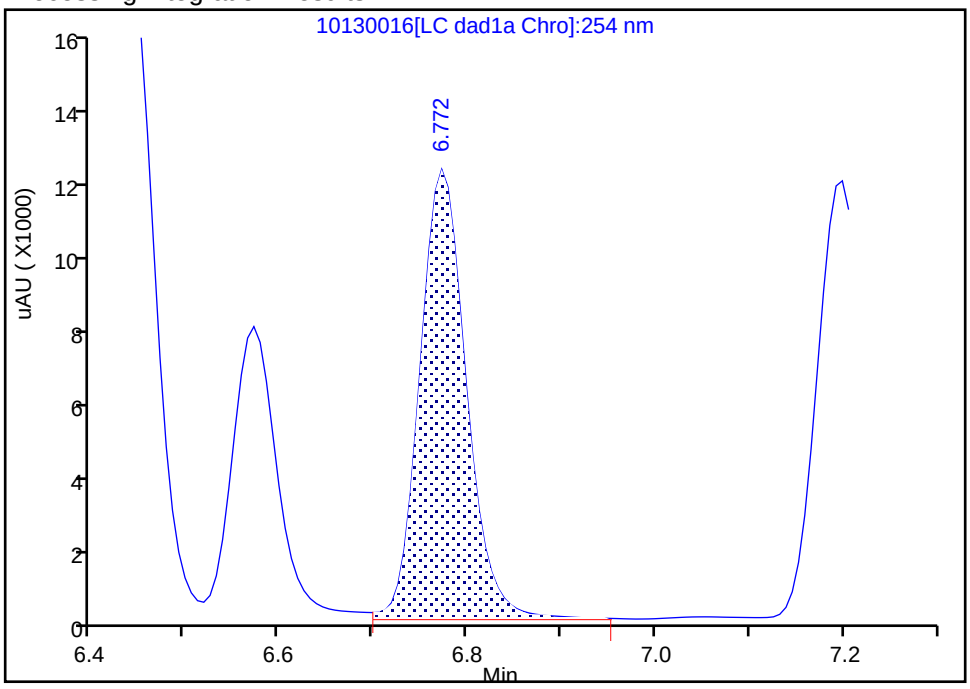
Data File:	\\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130016.d				
Injection Date:	13-Oct-2023 17:15:03	Instrument ID:	CHHPLC_X3		
Lims ID:	CCV DMT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	16
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X3	Limit Group:	GCSV - 8330		
Column:	UltraCarb5uODS (20) (4.60 mm)	Detector	LC DAD1B, 254 nm		

6 DNX, CAS: 80251-29-2

Signal: 1

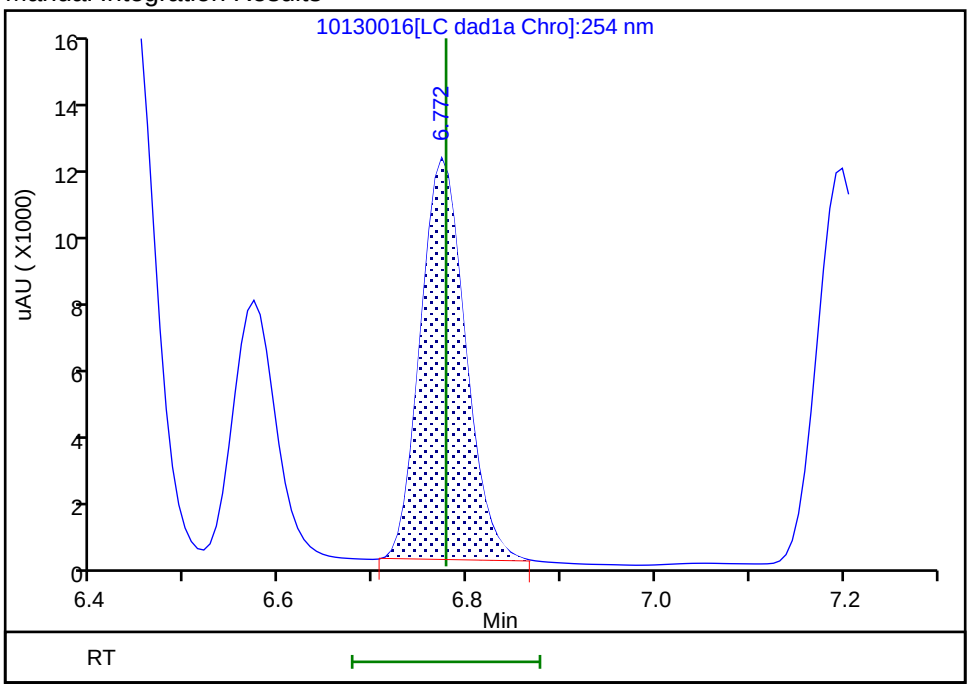
Processing Integration Results

RT: 6.77
Area: 38816
Amount: 0.268636
Amount Units: ug/mL



Manual Integration Results

RT: 6.77
Area: 36643
Amount: 0.253597
Amount Units: ug/mL



Reviewer: LV5D, 13-Oct-2023 18:54:22 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629671/17 Calibration Date: 10/13/2023 17:38

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10130017.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Ave	225565	214152		237	250	-5.1	20.0
2,4-diamino-6-nitrotoluene	Ave	143326	130516		228	250	-8.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629671/17 Calibration Date: 10/13/2023 17:38

Instrument ID: CHHPLC_X3 Calib Start Date: 06/23/2023 21:43

GC Column: UltraCarb5uODS ID: 4.60(mm) Calib End Date: 06/24/2023 00:23

Lab File ID: 10130017.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	6.44	6.29	6.59
2,4-diamino-6-nitrotoluene	6.64	6.48	6.78

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231013-126501.b\10130017.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 13-Oct-2023 17:38:03 ALS Bottle#: 8 Worklist Smp#: 17
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X3
Sublist: chrom-8330_X3*sub28

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231013-126501.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 13:59:12 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1649

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2 2,6-diamino-4-nitrotoluene	1	6.441	6.443	-0.002	53538	0.2500	0.2374	
5 2,4-diamino-6-nitrotoluene	1	6.635	6.630	0.005	32629	0.2500	0.2277	

Reagents:

8330_ADDs_00038 Amount Added: 12.50 Units: uL

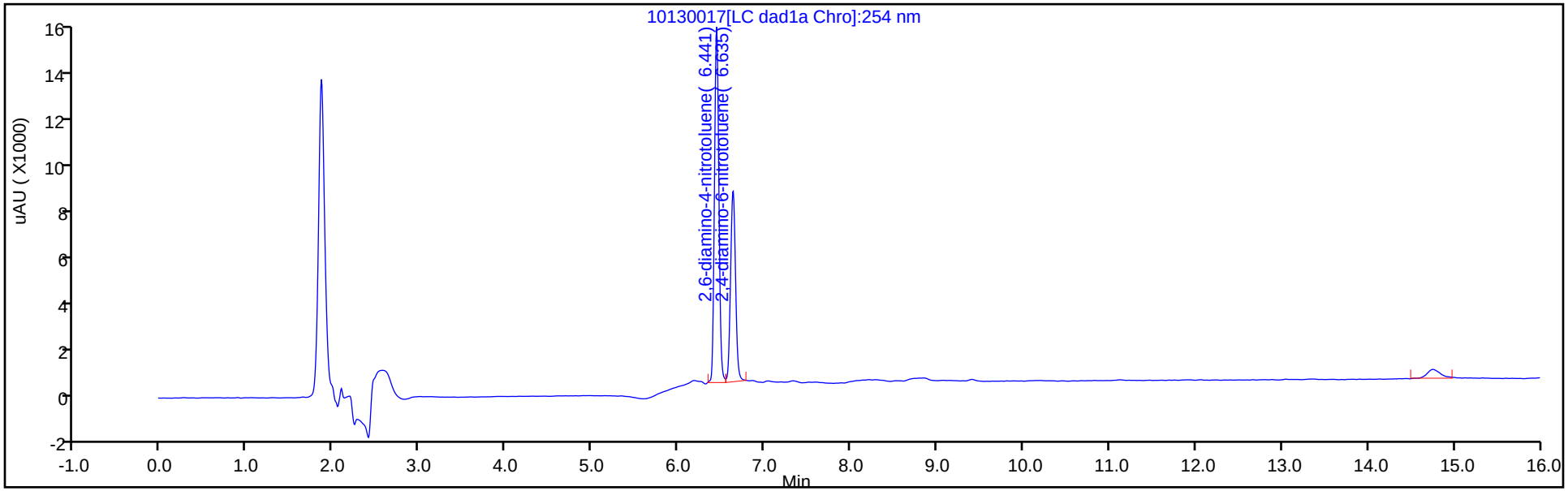
Report Date: 14-Oct-2023 13:59:12 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

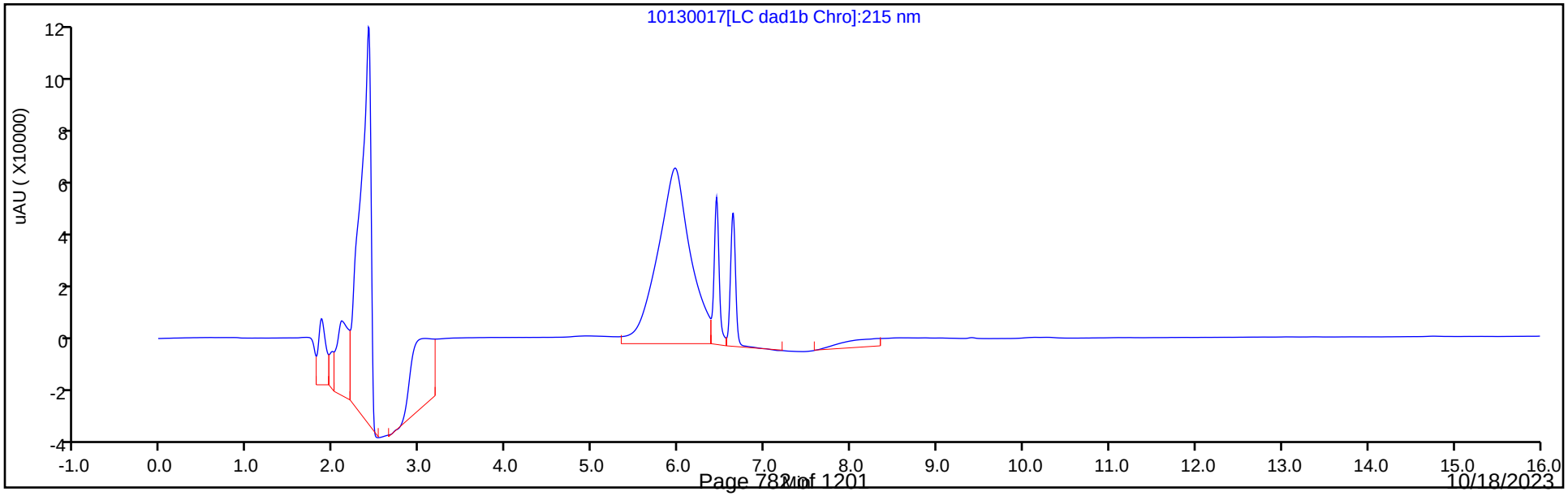
Data File: \\chromfs\denver\chromdata\chhplc_x\20231013-126501.b\10130017.d

Injection Date:	13-Oct-2023 17:38:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	17
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: ICV 280-626878/19 | Calibration Date: 09/21/2023 01:15

Instrument ID: CHHPLC_X5 | Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 09/21/2023 00:40

Lab File ID: 09200019.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	392878	377994		482	501	-3.8	20.0
DNX	Ave	288451	286653		499	502	-0.6	20.0
HMX	Ave	190100	173260		456	500	-8.9	20.0
MNX	Ave	265061	263354		582	586	-0.6	20.0
Picric acid	Lin2		169712		562	500	12.4	20.0
RDX	Ave	220484	211530		480	500	-4.1	20.0
Nitrobenzene	Ave	384007	395588		515	500	3.0	20.0
3,5-Dinitroaniline	Lin2		447402		540	500	8.1	20.0
1,3-Dinitrobenzene	Ave	585449	632188		540	500	8.0	20.0
Nitroglycerin	Ave	128462	138721		5400	5000	8.0	20.0
2-Nitrotoluene	Ave	237596	250190		527	500	5.3	20.0
4-Nitrotoluene	Ave	213737	226944		531	500	6.2	20.0
4-Amino-2,6-dinitrotoluene	Ave	272035	295158		542	500	8.5	20.0
3-Nitrotoluene	Ave	270588	284778		526	500	5.2	20.0
2-Amino-4,6-dinitrotoluene	Ave	391822	417542		533	500	6.6	20.0
1,3,5-Trinitrobenzene	Ave	398781	452868		568	500	13.6	20.0
2,6-Dinitrotoluene	Ave	274271	282350		515	500	2.9	20.0
2,4-Dinitrotoluene	Ave	544319	573394		527	500	5.3	20.0
Tetryl	Ave	307961	333394		541	500	8.3	20.0
2,4,6-Trinitrotoluene	Ave	394912	416764		528	500	5.5	20.0
PETN	Lin2		149602		5640	5000	12.8	20.0
1,2-Dinitrobenzene	Ave	266741	240938		452	500	-9.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: ICV 280-626878/19 Calibration Date: 09/21/2023 01:15

Instrument ID: CHHPLC_X5 Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 00:40

Lab File ID: 09200019.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.30	5.17	5.47
DNX	6.19	6.06	6.36
HMX	6.87	6.73	7.03
MNX	7.73	7.60	7.90
Picric acid	8.49	8.40	8.70
RDX	9.17	9.03	9.33
Nitrobenzene	11.77	11.64	11.94
3,5-Dinitroaniline	14.63	14.49	14.79
1,3-Dinitrobenzene	14.89	14.75	15.05
Nitroglycerin	15.48	15.33	15.63
2-Nitrotoluene	16.06	15.92	16.22
4-Nitrotoluene	16.29	16.15	16.45
4-Amino-2,6-dinitrotoluene	16.82	16.68	16.98
3-Nitrotoluene	17.15	17.01	17.31
2-Amino-4,6-dinitrotoluene	17.69	17.54	17.84
1,3,5-Trinitrobenzene	17.70	17.55	17.85
2,6-Dinitrotoluene	18.98	18.84	19.14
2,4-Dinitrotoluene	19.43	19.29	19.59
Tetryl	22.85	22.69	22.99
2,4,6-Trinitrotoluene	23.65	23.51	23.81
PETN	24.97	24.81	25.11
1,2-Dinitrobenzene	12.77	12.63	12.93

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200019.D
Lims ID: ICV INT
Client ID:
Sample Type: ICV
Inject. Date: 21-Sep-2023 01:15:31 ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV INT
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:13:02 Calib Date: 21-Sep-2023 00:40:35
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200018.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 11:54:59

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
3 TNX	1	5.299	5.324	-0.025	189186	0.5005	0.4815	
4 DNX	1	6.186	6.211	-0.025	143900	0.5020	0.4989	
5 HMX	1	6.866	6.877	-0.011	86630	0.5000	0.4557	
6 MNX	1	7.732	7.751	-0.019	154194	0.5855	0.5817	
7 2,4,6-Trinitrophenol	1	8.486	8.551	-0.065	84856	0.5000	0.5619	
8 RDX	1	9.166	9.184	-0.018	105765	0.5000	0.4797	
9 Nitrobenzene	1	11.765	11.790	-0.025	197794	0.5000	0.5151	
$ 10 1,2-Dinitrobenzene	1	12.765	12.784	-0.019	120469	0.5000	0.4516	
11 3,5-Dinitroaniline	1	14.625	14.644	-0.019	223701	0.5000	0.5403	
12 1,3-Dinitrobenzene	1	14.885	14.904	-0.019	316094	0.5000	0.5399	
13 Nitroglycerin	2	15.479	15.484	-0.005	693603	5.00	5.40	
14 o-Nitrotoluene	1	16.059	16.070	-0.011	125095	0.5000	0.5265	
16 p-Nitrotoluene	1	16.285	16.297	-0.012	113472	0.5000	0.5309	
17 4-Amino-2,6-dinitrotoluene	1	16.819	16.830	-0.011	147579	0.5000	0.5425	
18 m-Nitrotoluene	1	17.152	17.164	-0.012	142389	0.5000	0.5262	
19 2-Amino-4,6-dinitrotoluene	1	17.692	17.690	0.002	208771	0.5000	0.5328	M
20 1,3,5-Trinitrobenzene	1	17.699	17.704	-0.005	226434	0.5000	0.5678	M
21 2,6-Dinitrotoluene	1	18.979	18.990	-0.011	141175	0.5000	0.5147	
22 2,4-Dinitrotoluene	1	19.432	19.444	-0.012	286697	0.5000	0.5267	
23 Tetryl	1	22.846	22.837	0.009	166697	0.5000	0.5413	
24 2,4,6-Trinitrotoluene	1	23.652	23.657	-0.005	208382	0.5000	0.5277	
25 PETN	2	24.966	24.957	0.009	748009	5.00	5.64	M

QC Flag Legend

Processing Flags
Review Flags
M - Manually Integrated

Reagents:

8330Surrogate_00150	Amount Added:	50.00	Units: uL
8330_OP_DMT_00022	Amount Added:	50.00	Units: uL
8330 LCS_00130	Amount Added:	50.00	Units: uL

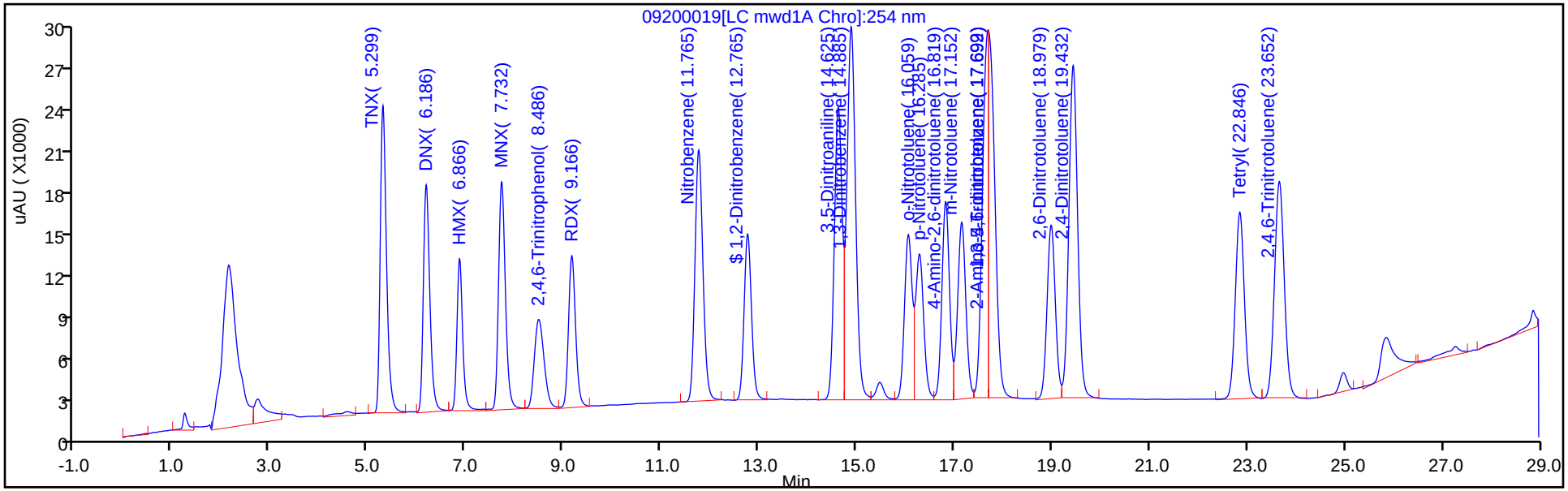
Report Date: 21-Sep-2023 16:13:48 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

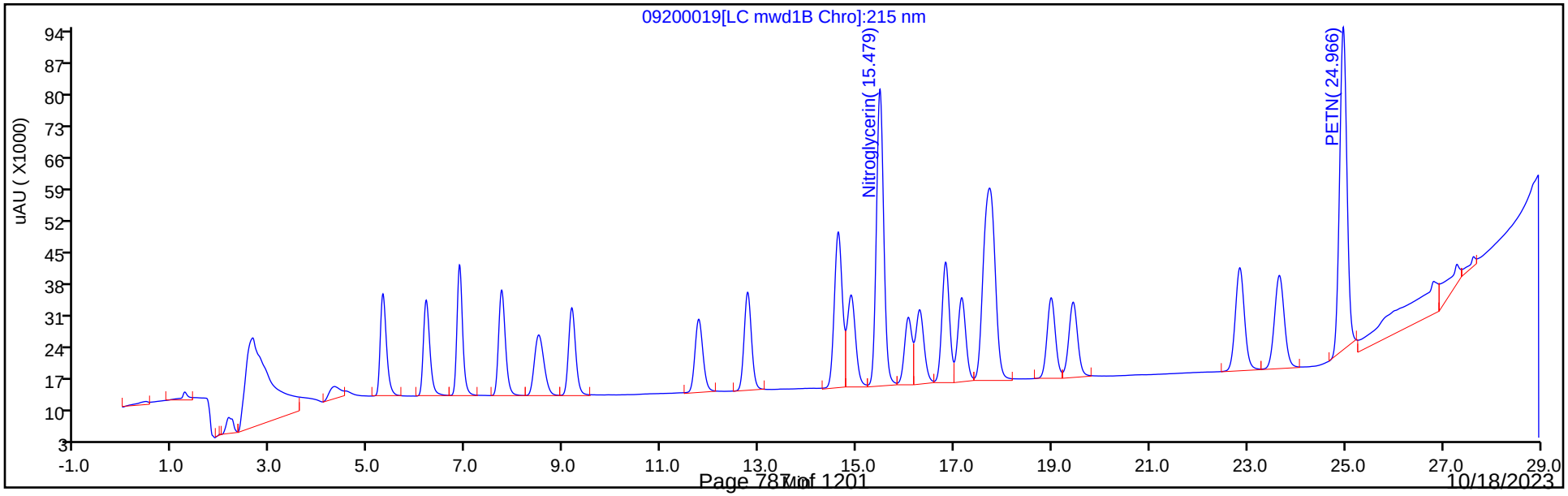
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200019.D

Injection Date:	21-Sep-2023 01:15:31	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	ICV INT			Worklist Smp#:	19
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023 8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

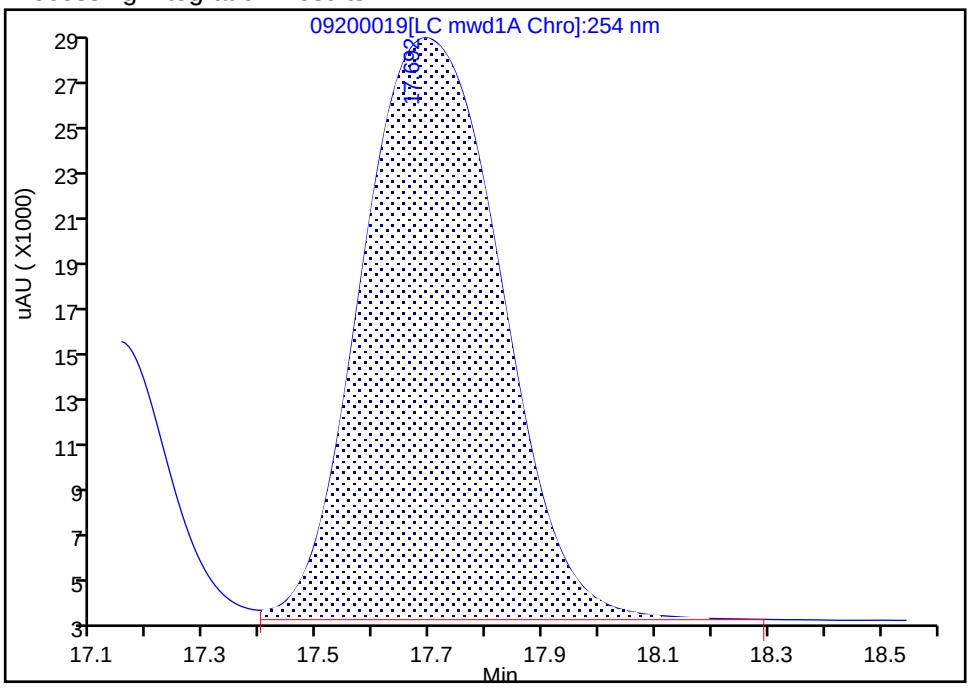
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200019.D				
Injection Date:	21-Sep-2023 01:15:31	Instrument ID:	CHHPLC_X5		
Lims ID:	ICV INT				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	19	Worklist Smp#:	19
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

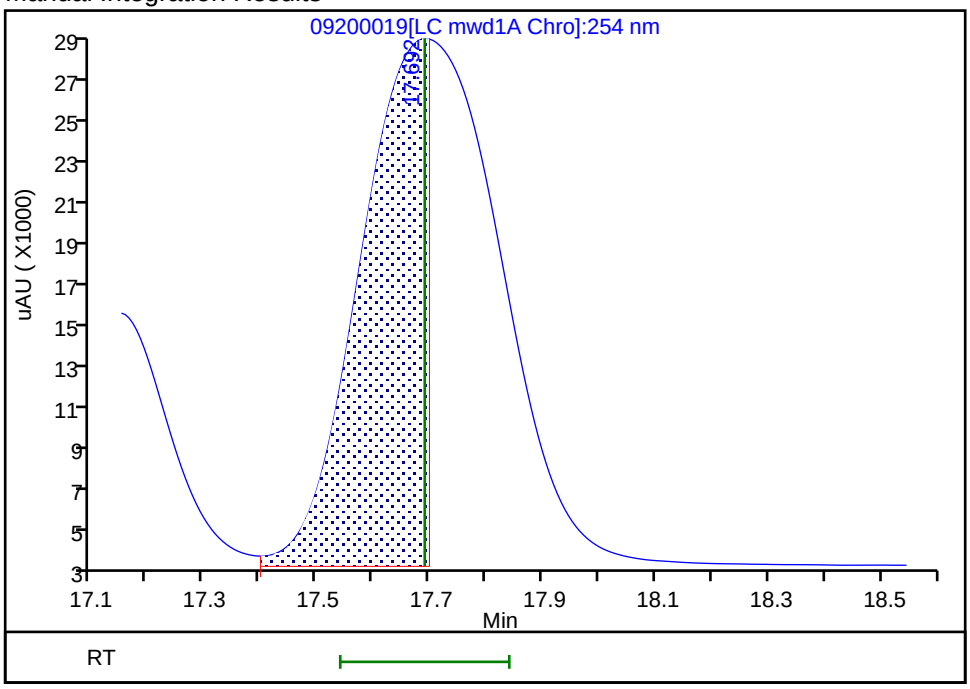
Processing Integration Results

RT: 17.69
Area: 435178
Amount: 1.110653
Amount Units: ug/ml



Manual Integration Results

RT: 17.69
Area: 208771
Amount: 0.532821
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 11:54:55 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

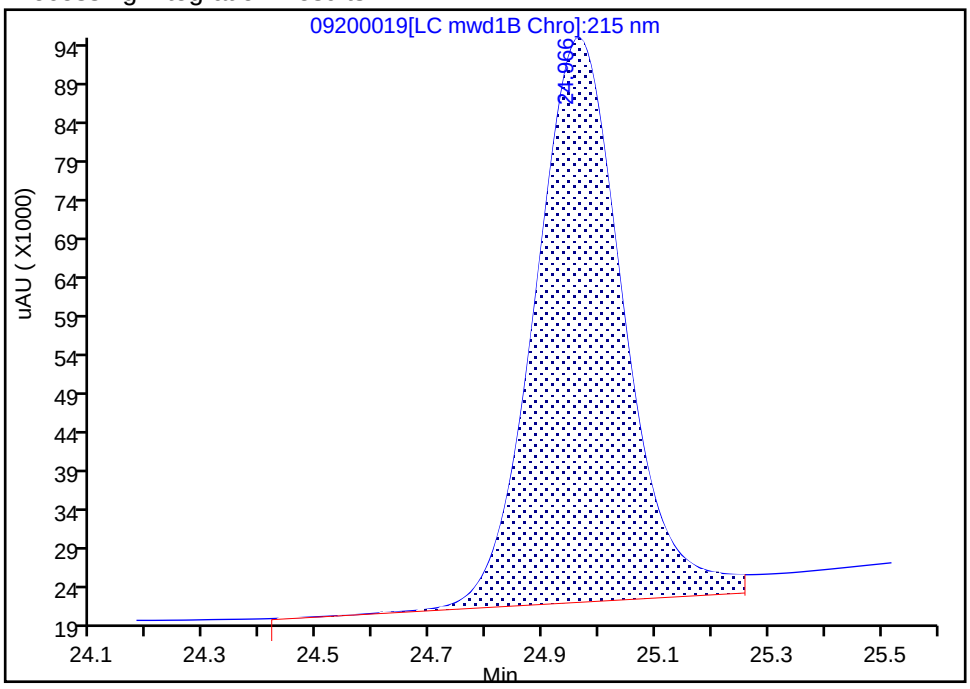
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200019.D
Injection Date: 21-Sep-2023 01:15:31 Instrument ID: CHHPLC_X5
Lims ID: ICV INT
Client ID:
Operator ID: JZ/JG ALS Bottle#: 19 Worklist Smp#: 19
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X5_Luna Limit Group: GCSV - 8330
Column: Luna-Phenyl hexyl (4.60 mm) Detector LC mwd1B, 215 nm

25 PETN, CAS: 78-11-5

Signal: 1

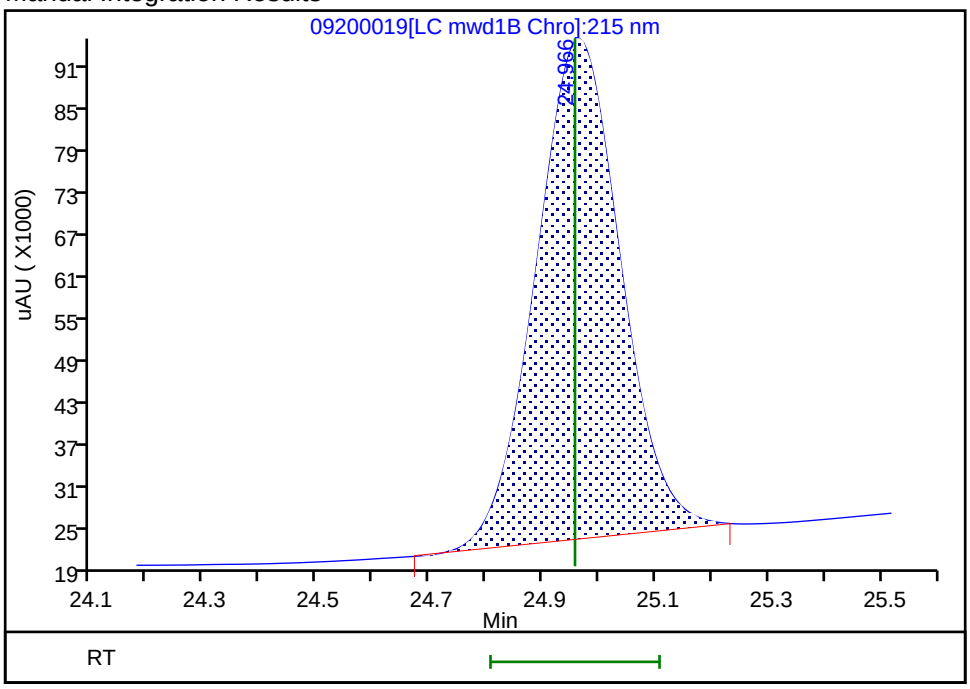
Processing Integration Results

RT: 24.97
Area: 801071
Amount: 5.596870
Amount Units: ug/ml



Manual Integration Results

RT: 24.97
Area: 748009
Amount: 5.637832
Amount Units: ug/ml



Reviewer: LV5D, 21-Sep-2023 16:04:05 -06:00:00 (UTC)
Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: ICV 280-626878/28 | Calibration Date: 09/21/2023 06:30

Instrument ID: CHHPLC_X5 | Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 09/21/2023 05:55

Lab File ID: 09200028.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin2		406956		523	500	4.7	20.0
2,4-diamino-6-nitrotoluene	Lin2		255200		526	500	5.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: ICV 280-626878/28 Calibration Date: 09/21/2023 06:30

Instrument ID: CHHPLC_X5 Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 05:55

Lab File ID: 09200028.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	4.25	4.10	4.40
2,4-diamino-6-nitrotoluene	4.87	4.72	5.02

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200028.D
Lims ID: ICV ADD
Client ID:
Sample Type: ICV
Inject. Date: 21-Sep-2023 06:30:31 ALS Bottle#: 28 Worklist Smp#: 28
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: ICV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist:

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 21-Sep-2023 16:13:02 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1611

First Level Reviewer: LV5D Date: 21-Sep-2023 16:13:02

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.248	4.246	0.002	203478	0.5000	0.5233	
2 2,4-diamino-6-nitrotoluene	1	4.868	4.866	0.002	127600	0.5000	0.5258	

QC Flag Legend
Processing Flags

Reagents:
8330DiaminLCS_00060 Amount Added: 25.00 Units: uL

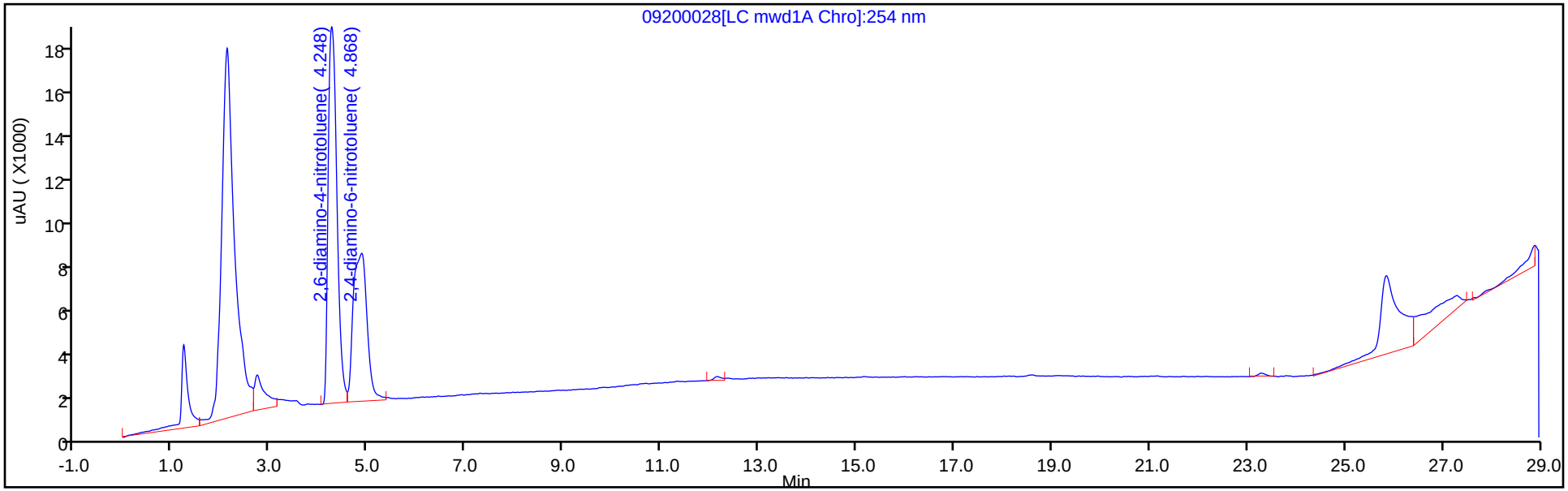
Report Date: 21-Sep-2023 16:13:13 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Denver

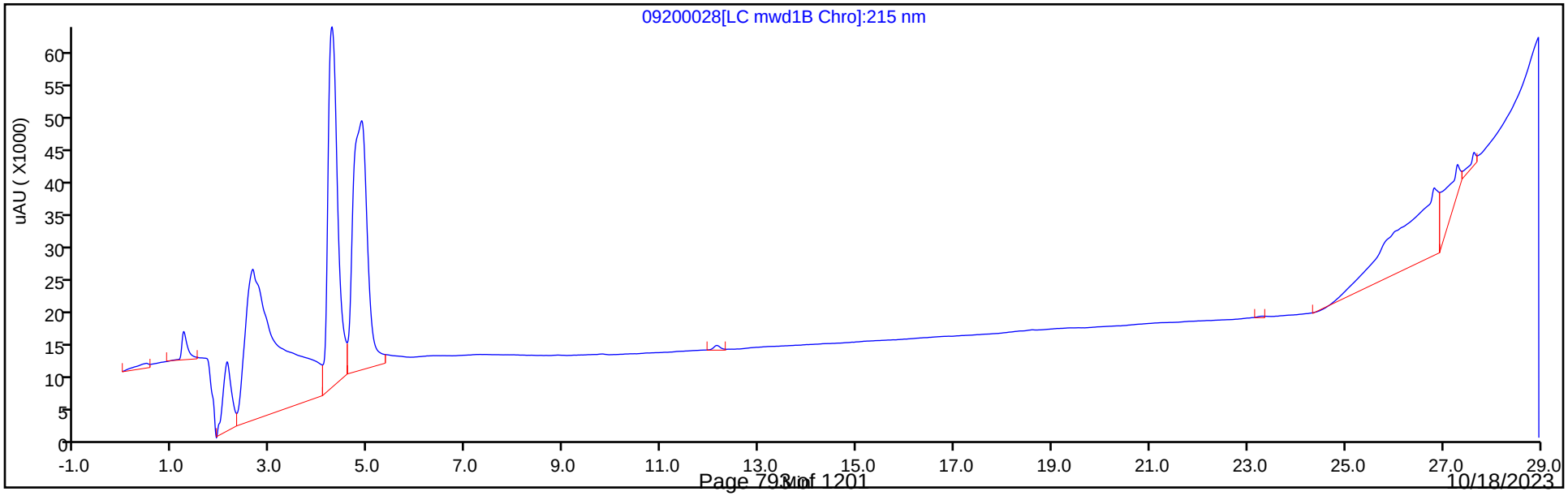
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200028.D

Injection Date:	21-Sep-2023 06:30:31	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	ICV ADD			Worklist Smp#:	28
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629680/9 | Calibration Date: 10/13/2023 16:43

Instrument ID: CHHPLC_X5 | Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 09/21/2023 00:40

Lab File ID: 10130009.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	392878	408830		261	251	4.1	20.0
DNX	Ave	288451	292903		254	250	1.5	20.0
HMX	Ave	190100	183136		241	250	-3.7	20.0
MNX	Ave	265061	268065		295	292	1.1	20.0
Picric acid	Lin2		133316		222	250	-11.4	20.0
RDX	Ave	220484	217740		247	250	-1.2	20.0
Nitrobenzene	Ave	384007	373000		243	250	-2.9	20.0
3,5-Dinitroaniline	Lin2		422552		255	250	2.0	20.0
1,3-Dinitrobenzene	Ave	585449	576504		246	250	-1.5	20.0
Nitroglycerin	Ave	128462	127810		2490	2500	-0.5	20.0
2-Nitrotoluene	Ave	237596	235416		248	250	-0.9	20.0
4-Nitrotoluene	Ave	213737	214616		251	250	0.4	20.0
4-Amino-2,6-dinitrotoluene	Ave	272035	270088		248	250	-0.7	20.0
3-Nitrotoluene	Ave	270588	269232		249	250	-0.5	20.0
2-Amino-4,6-dinitrotoluene	Ave	391822	382828		244	250	-2.3	20.0
1,3,5-Trinitrobenzene	Ave	398781	407560		256	250	2.2	20.0
2,6-Dinitrotoluene	Ave	274271	269684		246	250	-1.7	20.0
2,4-Dinitrotoluene	Ave	544319	535848		246	250	-1.6	20.0
Tetryl	Ave	307961	316408		257	250	2.7	20.0
2,4,6-Trinitrotoluene	Ave	394912	409576		259	250	3.7	20.0
PETN	Lin2		142272		2690	2500	7.6	20.0
1,2-Dinitrobenzene	Ave	266741	254520		239	250	-4.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629680/9 Calibration Date: 10/13/2023 16:43

Instrument ID: CHHPLC_X5 Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 00:40

Lab File ID: 10130009.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.31	5.16	5.46
DNX	6.19	6.04	6.34
HMX	6.85	6.70	7.00
MNX	7.72	7.57	7.87
Picric acid	8.88	8.73	9.03
RDX	9.15	9.00	9.30
Nitrobenzene	11.75	11.60	11.90
3,5-Dinitroaniline	14.60	14.45	14.75
1,3-Dinitrobenzene	14.86	14.71	15.01
Nitroglycerin	15.43	15.28	15.58
2-Nitrotoluene	16.01	15.86	16.16
4-Nitrotoluene	16.25	16.10	16.40
4-Amino-2,6-dinitrotoluene	16.78	16.63	16.93
3-Nitrotoluene	17.11	16.96	17.26
2-Amino-4,6-dinitrotoluene	17.64	17.49	17.79
1,3,5-Trinitrobenzene	17.66	17.52	17.82
2,6-Dinitrotoluene	18.93	18.78	19.08
2,4-Dinitrotoluene	19.39	19.24	19.54
Tetryl	22.77	22.62	22.92
2,4,6-Trinitrotoluene	23.58	23.43	23.73
PETN	24.88	24.73	25.03
1,2-Dinitrobenzene	12.75	12.60	12.90

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130009.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 13-Oct-2023 16:43:46 ALS Bottle#: 7 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub11

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 14:31:14 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 13-Oct-2023 18:55:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.218	4.218	0.000	101099	0.2500	0.2521	
2 2,4-diamino-6-nitrotoluene	1	4.852	4.852	0.000	64601	0.2500	0.2565	
3 TNX	1	5.305	5.305	0.000	102514	0.2508	0.2609	
4 DNX	1	6.185	6.185	0.000	73299	0.2503	0.2541	
5 HMX	1	6.852	6.852	0.000	45784	0.2500	0.2408	
6 MNX	1	7.718	7.718	0.000	78208	0.2918	0.2951	
7 2,4,6-Trinitrophenol	1	8.878	8.878	0.000	33329	0.2500	0.2216	
8 RDX	1	9.152	9.152	0.000	54435	0.2500	0.2469	
9 Nitrobenzene	1	11.752	11.752	0.000	93250	0.2500	0.2428	
$ 10 1,2-Dinitrobenzene	1	12.752	12.752	0.000	63630	0.2500	0.2385	
11 3,5-Dinitroaniline	1	14.598	14.598	0.000	105638	0.2500	0.2551	
12 1,3-Dinitrobenzene	1	14.858	14.858	0.000	144126	0.2500	0.2462	
13 Nitroglycerin	2	15.425	15.425	0.000	319525	2.50	2.49	
14 o-Nitrotoluene	1	16.012	16.012	0.000	58854	0.2500	0.2477	
16 p-Nitrotoluene	1	16.245	16.245	0.000	53654	0.2500	0.2510	
17 4-Amino-2,6-dinitrotoluene	1	16.778	16.778	0.000	67522	0.2500	0.2482	
18 m-Nitrotoluene	1	17.105	17.105	0.000	67308	0.2500	0.2487	
19 2-Amino-4,6-dinitrotoluene	1	17.638	17.638	0.000	95707	0.2500	0.2443	M
20 1,3,5-Trinitrobenzene	1	17.658	17.665	-0.007	101890	0.2500	0.2555	M
21 2,6-Dinitrotoluene	1	18.932	18.932	0.000	67421	0.2500	0.2458	
22 2,4-Dinitrotoluene	1	19.385	19.385	0.000	133962	0.2500	0.2461	
23 Tetryl	1	22.765	22.765	0.000	79102	0.2500	0.2569	
24 2,4,6-Trinitrotoluene	1	23.578	23.578	0.000	102394	0.2500	0.2593	
25 PETN	2	24.878	24.878	0.000	355679	2.50	2.69	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330_ADDs_00037	Amount Added:	12.50	Units: uL

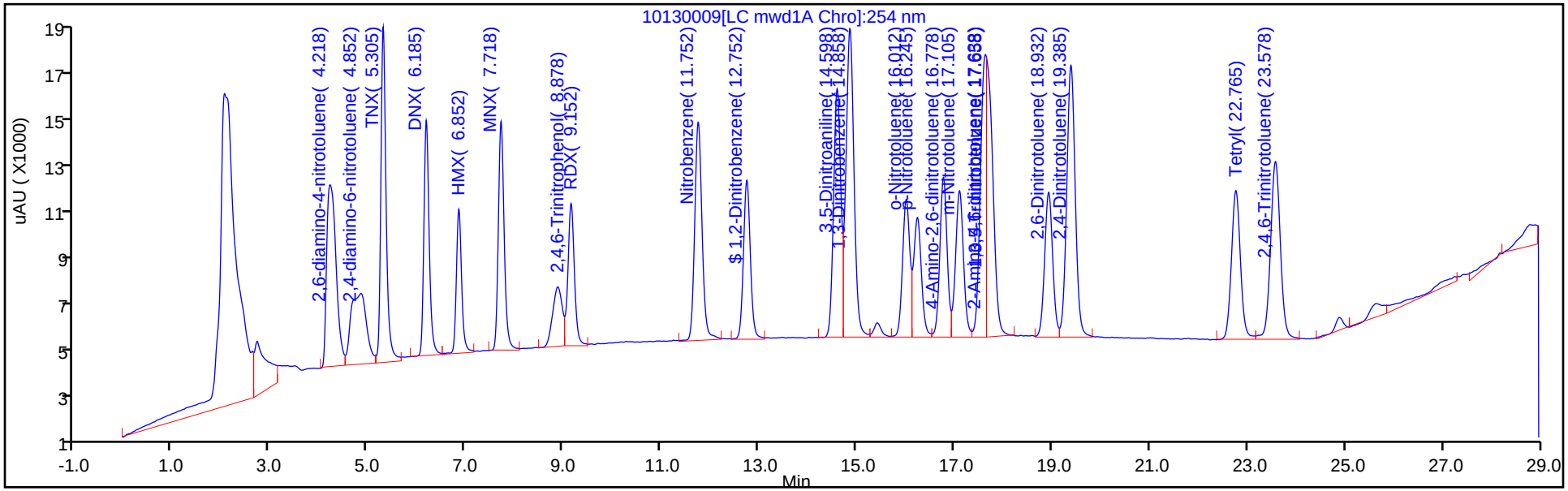
Report Date: 14-Oct-2023 14:31:15 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

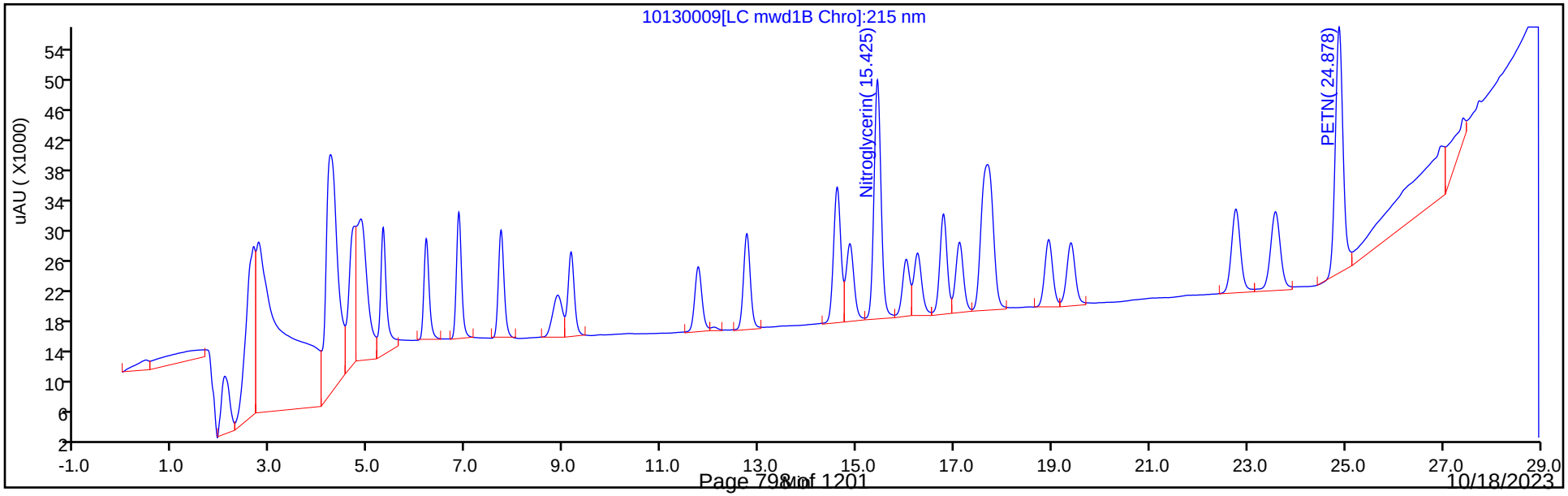
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130009.D

Injection Date:	13-Oct-2023 16:43:46	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Manual Integration/User Assign Peak Report

Eurofins Denver

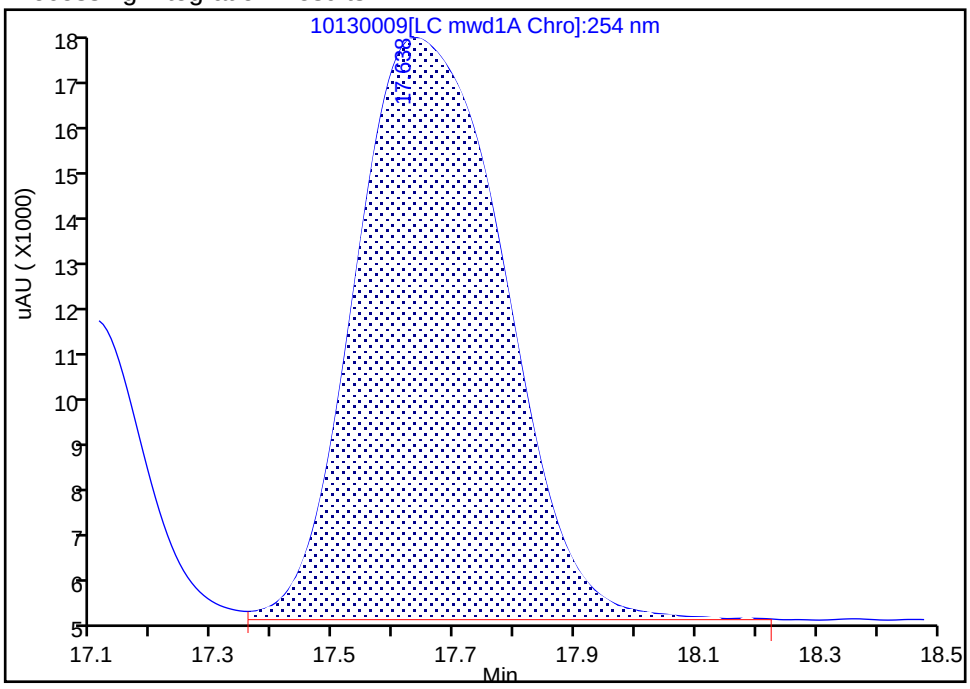
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130009.D				
Injection Date:	13-Oct-2023 16:43:46	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	9
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

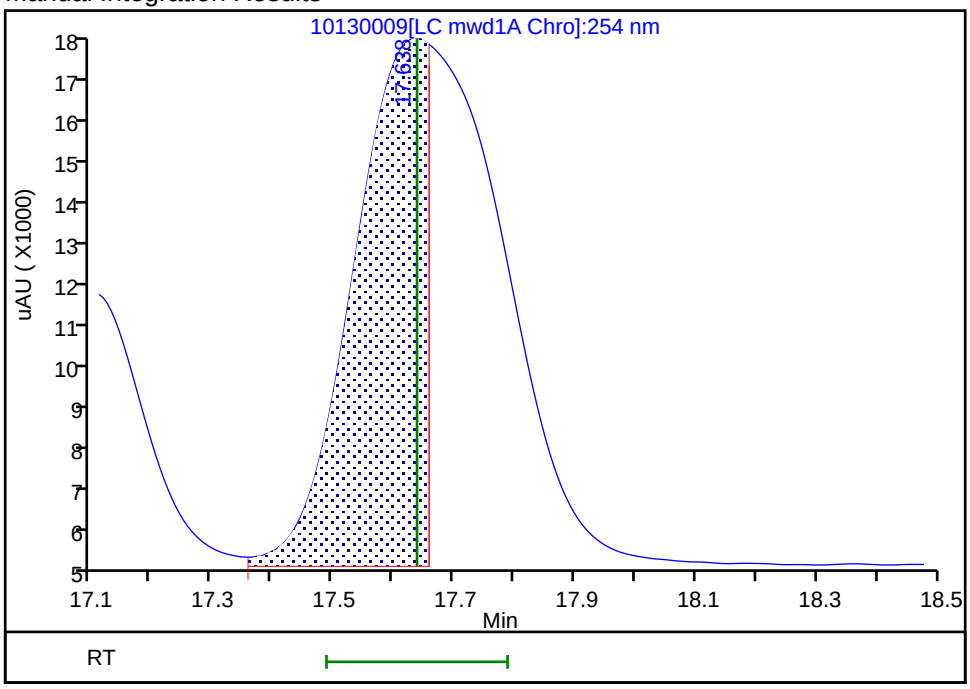
Processing Integration Results

RT: 17.64
Area: 197594
Amount: 0.504295
Amount Units: ug/ml



Manual Integration Results

RT: 17.64
Area: 95707
Amount: 0.244261
Amount Units: ug/ml



Reviewer: LV5D, 13-Oct-2023 18:55:42 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629680/9 Calibration Date: 10/13/2023 16:43

Instrument ID: CHHPLC_X5 Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 05:55

Lab File ID: 10130009.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin2		404396		252	250	0.8	20.0
2,4-diamino-6-nitrotoluene	Lin2		258404		256	250	2.6	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629680/9 Calibration Date: 10/13/2023 16:43

Instrument ID: CHHPLC_X5 Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 05:55

Lab File ID: 10130009.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	4.22	4.07	4.37
2,4-diamino-6-nitrotoluene	4.85	4.70	5.00

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130009.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 13-Oct-2023 16:43:46 ALS Bottle#: 7 Worklist Smp#: 9
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub11

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 14:31:14 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 13-Oct-2023 18:55:45

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 2,6-diamino-4-nitrotoluene	1	4.218	4.218	0.000	101099	0.2500	0.2521	
2 2,4-diamino-6-nitrotoluene	1	4.852	4.852	0.000	64601	0.2500	0.2565	
3 TNX	1	5.305	5.305	0.000	102514	0.2508	0.2609	
4 DNX	1	6.185	6.185	0.000	73299	0.2503	0.2541	
5 HMX	1	6.852	6.852	0.000	45784	0.2500	0.2408	
6 MNX	1	7.718	7.718	0.000	78208	0.2918	0.2951	
7 2,4,6-Trinitrophenol	1	8.878	8.878	0.000	33329	0.2500	0.2216	
8 RDX	1	9.152	9.152	0.000	54435	0.2500	0.2469	
9 Nitrobenzene	1	11.752	11.752	0.000	93250	0.2500	0.2428	
$ 10 1,2-Dinitrobenzene	1	12.752	12.752	0.000	63630	0.2500	0.2385	
11 3,5-Dinitroaniline	1	14.598	14.598	0.000	105638	0.2500	0.2551	
12 1,3-Dinitrobenzene	1	14.858	14.858	0.000	144126	0.2500	0.2462	
13 Nitroglycerin	2	15.425	15.425	0.000	319525	2.50	2.49	
14 o-Nitrotoluene	1	16.012	16.012	0.000	58854	0.2500	0.2477	
16 p-Nitrotoluene	1	16.245	16.245	0.000	53654	0.2500	0.2510	
17 4-Amino-2,6-dinitrotoluene	1	16.778	16.778	0.000	67522	0.2500	0.2482	
18 m-Nitrotoluene	1	17.105	17.105	0.000	67308	0.2500	0.2487	
19 2-Amino-4,6-dinitrotoluene	1	17.638	17.638	0.000	95707	0.2500	0.2443	M
20 1,3,5-Trinitrobenzene	1	17.658	17.665	-0.007	101890	0.2500	0.2555	M
21 2,6-Dinitrotoluene	1	18.932	18.932	0.000	67421	0.2500	0.2458	
22 2,4-Dinitrotoluene	1	19.385	19.385	0.000	133962	0.2500	0.2461	
23 Tetryl	1	22.765	22.765	0.000	79102	0.2500	0.2569	
24 2,4,6-Trinitrotoluene	1	23.578	23.578	0.000	102394	0.2500	0.2593	
25 PETN	2	24.878	24.878	0.000	355679	2.50	2.69	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330_ADDs_00037	Amount Added:	12.50	Units: uL

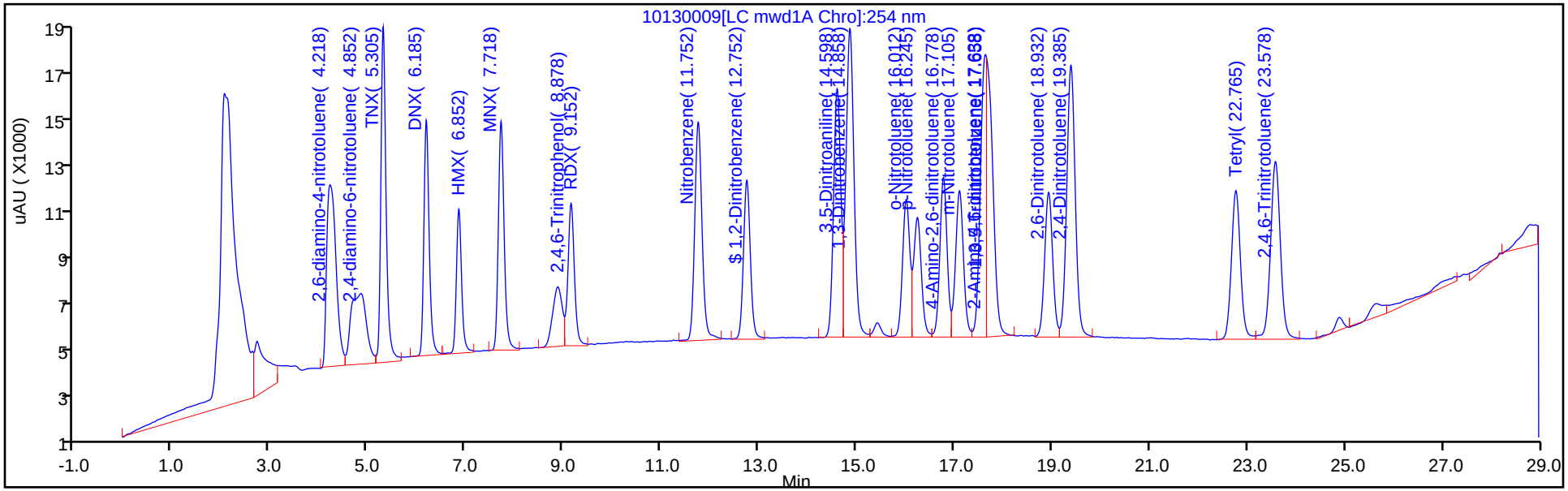
Report Date: 14-Oct-2023 14:31:15 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

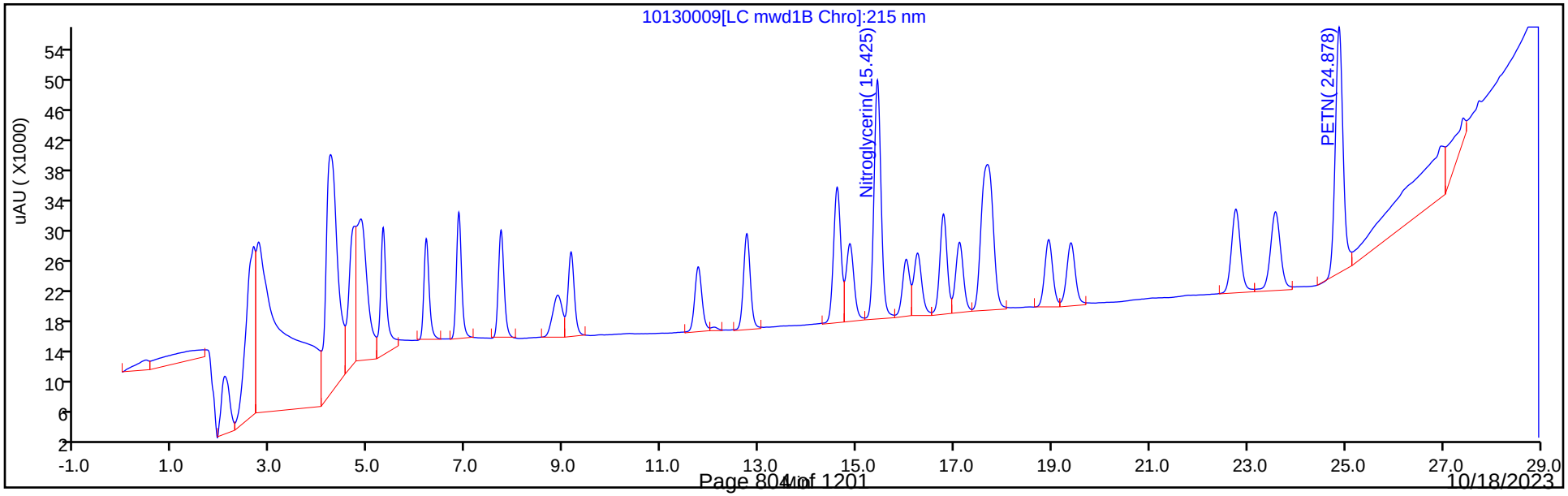
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130009.D

Injection Date:	13-Oct-2023 16:43:46	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	9
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629680/20 Calibration Date: 10/13/2023 23:08

Instrument ID: CHHPLC_X5 Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 00:40

Lab File ID: 10130020.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
TNX	Ave	392878	413456		264	251	5.2	20.0
DNX	Ave	288451	298198		259	250	3.4	20.0
HMX	Ave	190100	189688		249	250	-0.2	20.0
MNX	Ave	265061	272901		300	292	3.0	20.0
Picric acid	Lin2		141684		235	250	-5.8	20.0
RDX	Ave	220484	217244		246	250	-1.5	20.0
Nitrobenzene	Ave	384007	365704		238	250	-4.8	20.0
3,5-Dinitroaniline	Lin2		427096		258	250	3.1	20.0
1,3-Dinitrobenzene	Ave	585449	580260		248	250	-0.9	20.0
Nitroglycerin	Ave	128462	127075		2470	2500	-1.1	20.0
2-Nitrotoluene	Ave	237596	232700		245	250	-2.1	20.0
4-Nitrotoluene	Ave	213737	214624		251	250	0.4	20.0
4-Amino-2,6-dinitrotoluene	Ave	272035	273064		251	250	0.4	20.0
3-Nitrotoluene	Ave	270588	268616		248	250	-0.7	20.0
2-Amino-4,6-dinitrotoluene	Ave	391822	402888		257	250	2.8	20.0
1,3,5-Trinitrobenzene	Ave	398781	391984		246	250	-1.7	20.0
2,6-Dinitrotoluene	Ave	274271	271224		247	250	-1.1	20.0
2,4-Dinitrotoluene	Ave	544319	537224		247	250	-1.3	20.0
Tetryl	Ave	307961	309424		251	250	0.5	20.0
2,4,6-Trinitrotoluene	Ave	394912	403848		256	250	2.3	20.0
PETN	Lin2		147162		2780	2500	11.3	20.0
1,2-Dinitrobenzene	Ave	266741	255692		240	250	-4.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629680/20 Calibration Date: 10/13/2023 23:08

Instrument ID: CHHPLC_X5 Calib Start Date: 09/20/2023 20:01

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 00:40

Lab File ID: 10130020.D

Analyte	RT	RT WINDOW	
		FROM	TO
TNX	5.30	5.16	5.46
DNX	6.17	6.04	6.34
HMX	6.84	6.70	7.00
MNX	7.71	7.57	7.87
Picric acid	8.79	8.73	9.03
RDX	9.14	9.00	9.30
Nitrobenzene	11.74	11.60	11.90
3,5-Dinitroaniline	14.59	14.45	14.75
1,3-Dinitrobenzene	14.85	14.71	15.01
Nitroglycerin	15.41	15.28	15.58
2-Nitrotoluene	16.01	15.86	16.16
4-Nitrotoluene	16.23	16.10	16.40
4-Amino-2,6-dinitrotoluene	16.77	16.63	16.93
3-Nitrotoluene	17.09	16.96	17.26
2-Amino-4,6-dinitrotoluene	17.61	17.49	17.79
1,3,5-Trinitrobenzene	17.65	17.52	17.82
2,6-Dinitrotoluene	18.91	18.78	19.08
2,4-Dinitrotoluene	19.37	19.24	19.54
Tetryl	22.74	22.62	22.92
2,4,6-Trinitrotoluene	23.55	23.43	23.73
PETN	24.86	24.73	25.03
1,2-Dinitrobenzene	12.73	12.60	12.90

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130020.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 13-Oct-2023 23:08:18 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub11

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 14:31:12 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 14-Oct-2023 10:51:28

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.221	4.218	0.003	102500	0.2500	0.2558	
	2 2,4-diamino-6-nitrotoluene	1	4.847	4.852	-0.005	66156	0.2500	0.2631	
	3 TNX	1	5.301	5.305	-0.004	103674	0.2508	0.2639	
	4 DNX	1	6.174	6.185	-0.011	74624	0.2503	0.2587	
	5 HMX	1	6.841	6.852	-0.011	47422	0.2500	0.2495	
	6 MNX	1	7.714	7.718	-0.004	79619	0.2918	0.3004	
	7 2,4,6-Trinitrophenol	1	8.794	8.878	-0.084	35421	0.2500	0.2354	
	8 RDX	1	9.141	9.152	-0.011	54311	0.2500	0.2463	
	9 Nitrobenzene	1	11.741	11.752	-0.011	91426	0.2500	0.2381	
$	10 1,2-Dinitrobenzene	1	12.734	12.752	-0.018	63923	0.2500	0.2396	
	11 3,5-Dinitroaniline	1	14.587	14.598	-0.011	106774	0.2500	0.2578	
	12 1,3-Dinitrobenzene	1	14.847	14.858	-0.011	145065	0.2500	0.2478	
	13 Nitroglycerin	2	15.414	15.425	-0.011	317688	2.50	2.47	
	14 o-Nitrotoluene	1	16.007	16.012	-0.005	58175	0.2500	0.2448	
	16 p-Nitrotoluene	1	16.234	16.245	-0.011	53656	0.2500	0.2510	
	17 4-Amino-2,6-dinitrotoluene	1	16.767	16.778	-0.011	68266	0.2500	0.2509	
	18 m-Nitrotoluene	1	17.094	17.105	-0.011	67154	0.2500	0.2482	
	19 2-Amino-4,6-dinitrotoluene	1	17.614	17.638	-0.024	100722	0.2500	0.2571	M
	20 1,3,5-Trinitrobenzene	1	17.647	17.665	-0.018	97996	0.2500	0.2457	M
	21 2,6-Dinitrotoluene	1	18.914	18.932	-0.018	67806	0.2500	0.2472	
	22 2,4-Dinitrotoluene	1	19.367	19.385	-0.018	134306	0.2500	0.2467	
	23 Tetryl	1	22.741	22.765	-0.024	77356	0.2500	0.2512	
	24 2,4,6-Trinitrotoluene	1	23.554	23.578	-0.024	100962	0.2500	0.2557	
	25 PETN	2	24.861	24.878	-0.017	367904	2.50	2.78	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330_ADDs_00037	Amount Added:	12.50	Units: uL

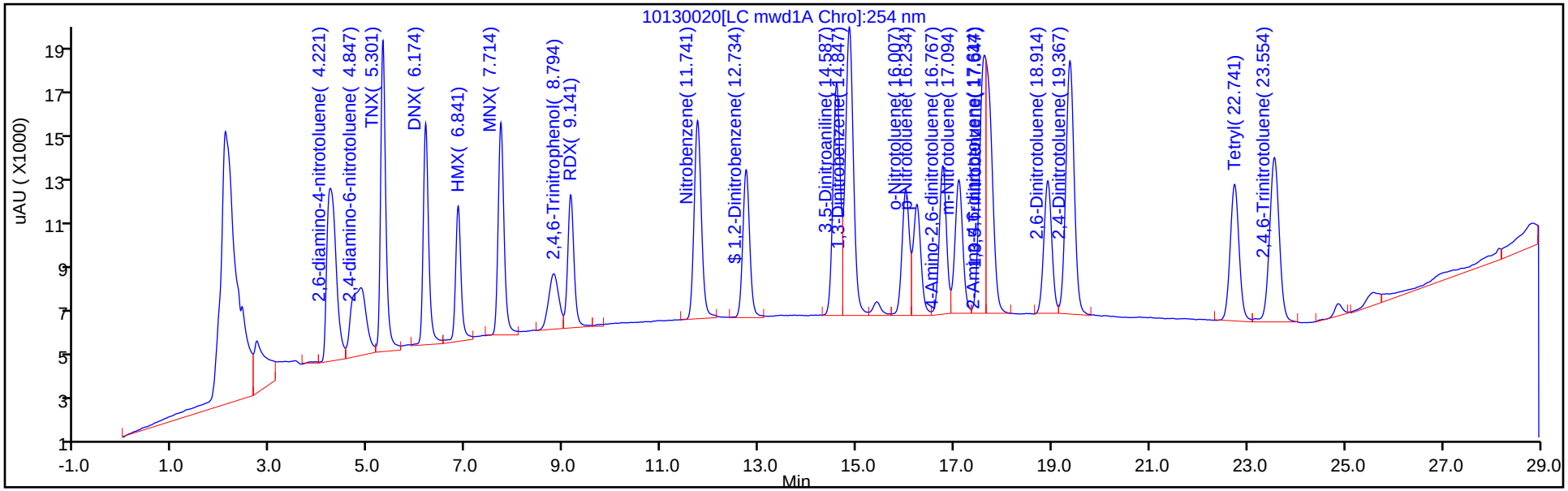
Report Date: 14-Oct-2023 14:31:12 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

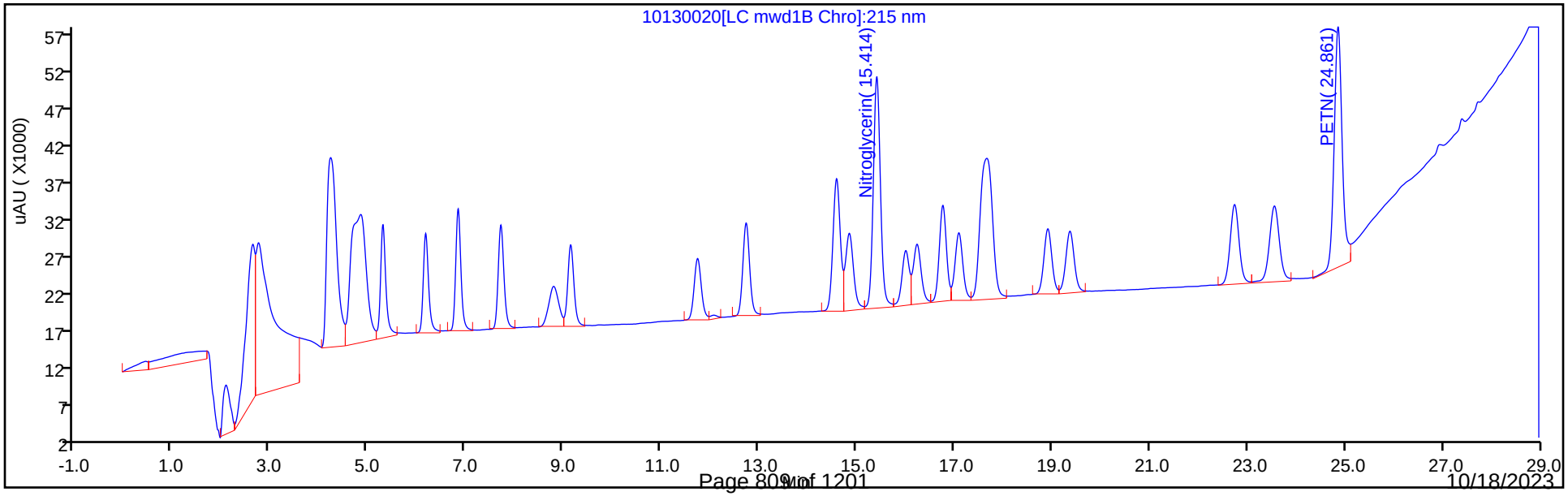
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130020.D

Injection Date:	13-Oct-2023 23:08:18	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023 8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

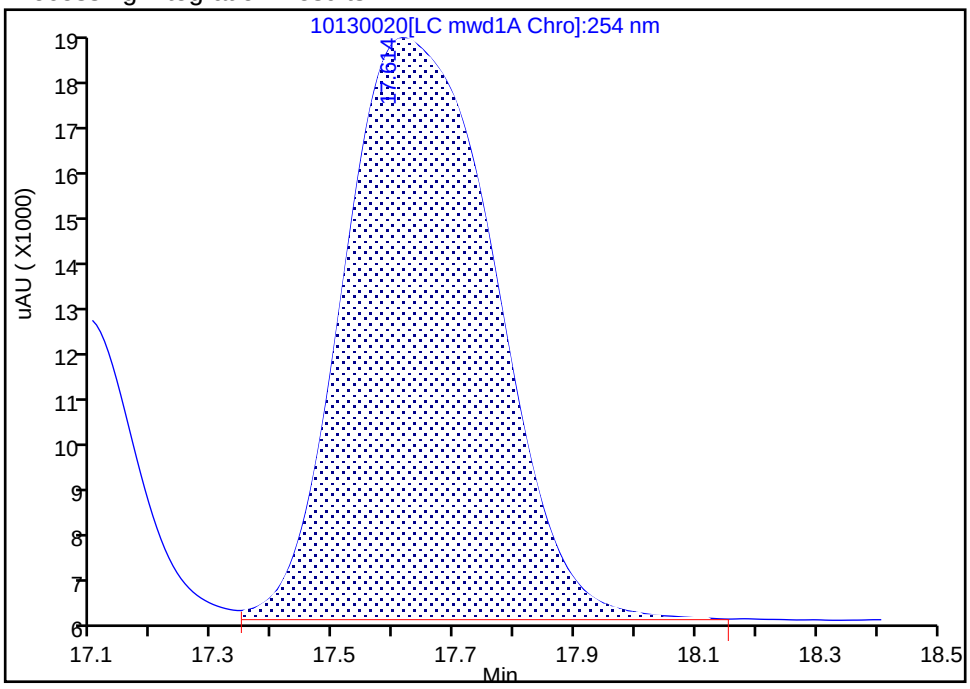
Data File:	\\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130020.D				
Injection Date:	13-Oct-2023 23:08:18	Instrument ID:	CHHPLC_X5		
Lims ID:	CCV ADD				
Client ID:					
Operator ID:	JZ/JG	ALS Bottle#:	7	Worklist Smp#:	20
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		
Column:	Luna-Phenyl hexyl (4.60 mm)	Detector	LC mwd1A, 254 nm		

19 2-Amino-4,6-dinitrotoluene, CAS: 35572-78-2

Signal: 1

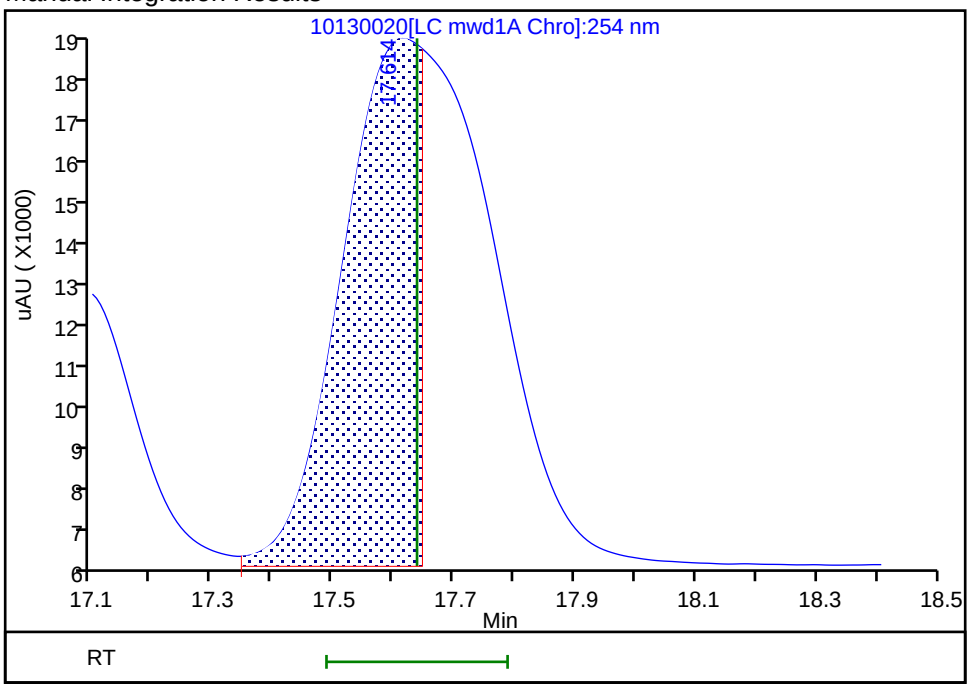
Processing Integration Results

RT: 17.61
Area: 198704
Amount: 0.507128
Amount Units: ug/ml



Manual Integration Results

RT: 17.61
Area: 100722
Amount: 0.257061
Amount Units: ug/ml



Reviewer: LV5D, 14-Oct-2023 10:51:19 -06:00:00 (UTC)

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629680/20 | Calibration Date: 10/13/2023 23:08

Instrument ID: CHHPLC_X5 | Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) | Calib End Date: 09/21/2023 05:55

Lab File ID: 10130020.D | Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin2		410000		256	250	2.3	20.0
2,4-diamino-6-nitrotoluene	Lin2		264624		263	250	5.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Lab Sample ID: CCV 280-629680/20 Calibration Date: 10/13/2023 23:08

Instrument ID: CHHPLC_X5 Calib Start Date: 09/21/2023 01:50

GC Column: Luna-phenylhex ID: 4.60(mm) Calib End Date: 09/21/2023 05:55

Lab File ID: 10130020.D

Analyte	RT	RT WINDOW	
		FROM	TO
2,6-diamino-4-nitrotoluene	4.22	4.07	4.37
2,4-diamino-6-nitrotoluene	4.85	4.70	5.00

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130020.D
Lims ID: CCV ADD
Client ID:
Sample Type: CCV
Inject. Date: 13-Oct-2023 23:08:18 ALS Bottle#: 7 Worklist Smp#: 20
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: CCV ADD
Operator ID: JZ/JG Instrument ID: CHHPLC_X5
Sublist: chrom-8330_X5_Luna*sub11

Method: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\8330_X5_Luna.m
Limit Group: GCSV - 8330
Last Update: 14-Oct-2023 14:31:12 Calib Date: 21-Sep-2023 05:55:36
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X5\20230920-125649.b\09200027.D

Column 1 : Luna-Phenyl hexyl (4.60 mm) Det: LC mwd1A, 254 nm
Process Host: CTX1649

First Level Reviewer: LV5D Date: 14-Oct-2023 10:51:28

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
	1 2,6-diamino-4-nitrotoluene	1	4.221	4.218	0.003	102500	0.2500	0.2558	
	2 2,4-diamino-6-nitrotoluene	1	4.847	4.852	-0.005	66156	0.2500	0.2631	
	3 TNX	1	5.301	5.305	-0.004	103674	0.2508	0.2639	
	4 DNX	1	6.174	6.185	-0.011	74624	0.2503	0.2587	
	5 HMX	1	6.841	6.852	-0.011	47422	0.2500	0.2495	
	6 MNX	1	7.714	7.718	-0.004	79619	0.2918	0.3004	
	7 2,4,6-Trinitrophenol	1	8.794	8.878	-0.084	35421	0.2500	0.2354	
	8 RDX	1	9.141	9.152	-0.011	54311	0.2500	0.2463	
	9 Nitrobenzene	1	11.741	11.752	-0.011	91426	0.2500	0.2381	
$	10 1,2-Dinitrobenzene	1	12.734	12.752	-0.018	63923	0.2500	0.2396	
	11 3,5-Dinitroaniline	1	14.587	14.598	-0.011	106774	0.2500	0.2578	
	12 1,3-Dinitrobenzene	1	14.847	14.858	-0.011	145065	0.2500	0.2478	
	13 Nitroglycerin	2	15.414	15.425	-0.011	317688	2.50	2.47	
	14 o-Nitrotoluene	1	16.007	16.012	-0.005	58175	0.2500	0.2448	
	16 p-Nitrotoluene	1	16.234	16.245	-0.011	53656	0.2500	0.2510	
	17 4-Amino-2,6-dinitrotoluene	1	16.767	16.778	-0.011	68266	0.2500	0.2509	
	18 m-Nitrotoluene	1	17.094	17.105	-0.011	67154	0.2500	0.2482	
	19 2-Amino-4,6-dinitrotoluene	1	17.614	17.638	-0.024	100722	0.2500	0.2571	M
	20 1,3,5-Trinitrobenzene	1	17.647	17.665	-0.018	97996	0.2500	0.2457	M
	21 2,6-Dinitrotoluene	1	18.914	18.932	-0.018	67806	0.2500	0.2472	
	22 2,4-Dinitrotoluene	1	19.367	19.385	-0.018	134306	0.2500	0.2467	
	23 Tetryl	1	22.741	22.765	-0.024	77356	0.2500	0.2512	
	24 2,4,6-Trinitrotoluene	1	23.554	23.578	-0.024	100962	0.2500	0.2557	
	25 PETN	2	24.861	24.878	-0.017	367904	2.50	2.78	

QC Flag Legend
Processing Flags

Review Flags
M - Manually Integrated

Reagents:

8330 DMT_00015	Amount Added:	12.50	Units: uL
8330IntermStk_00078	Amount Added:	25.00	Units: uL
8330_ADDs_00037	Amount Added:	12.50	Units: uL

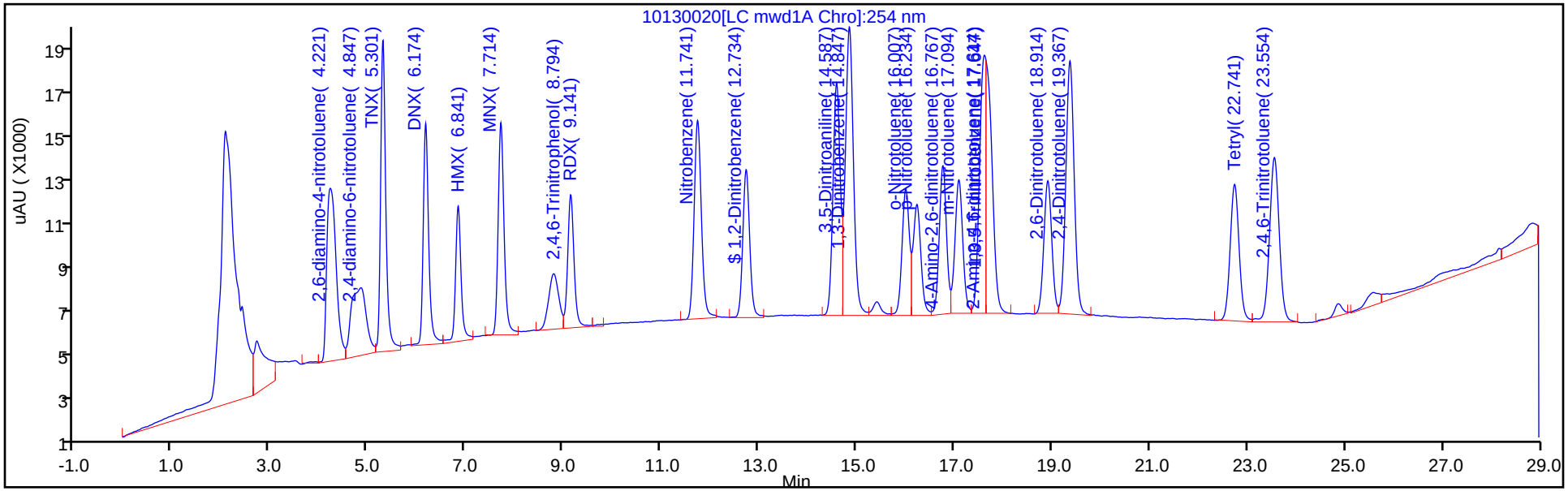
Report Date: 14-Oct-2023 14:31:12 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

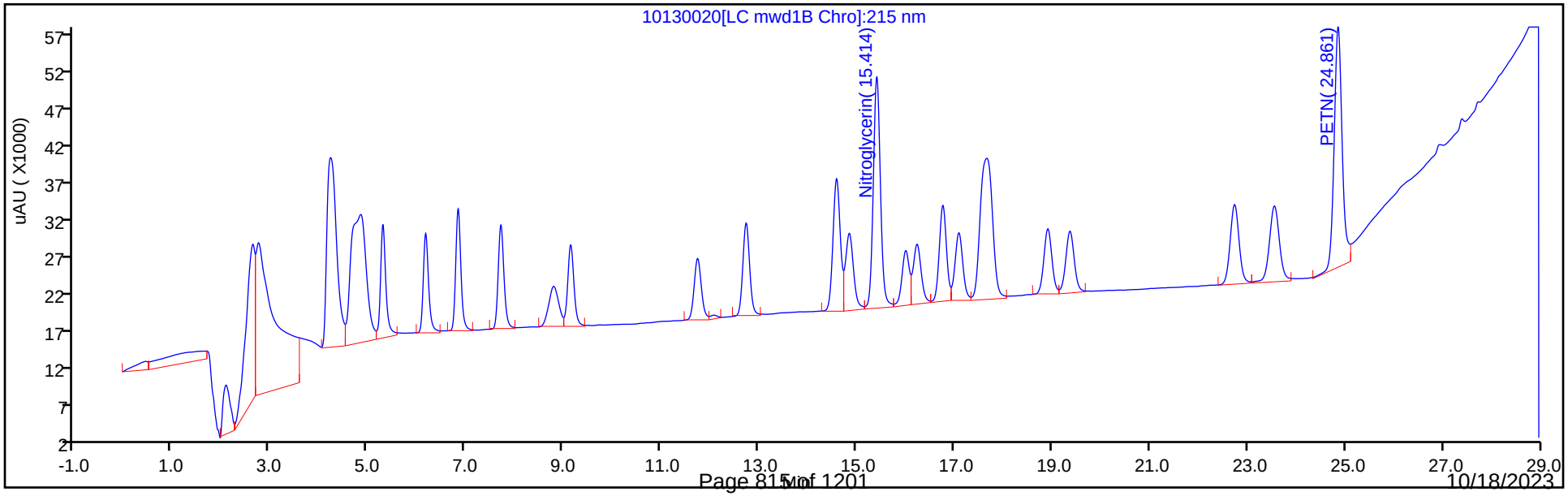
Data File: \\chromfs\Denver\ChromData\CHHPLC_X5\20231013-126502.b\10130020.D

Injection Date:	13-Oct-2023 23:08:18	Instrument ID:	CHHPLC_X5	Operator ID:	JZ/JG
Lims ID:	CCV ADD			Worklist Smp#:	20
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	8330_X5_Luna	Limit Group:	GCSV - 8330		

Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: Luna-Phenyl hexyl (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-629324/1-A

Matrix: Water | Lab File ID: 10120011.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 500(mL) | Date Analyzed: 10/12/2023 14:06

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	0.20	U M	0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	0.10	U	0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	0.10	U	0.11	0.10	0.045
6629-29-4	2,4-diamino-6-nitrotoluene	0.90	U	1.0	0.90	0.43
121-14-2	2,4-Dinitrotoluene	0.080	U	0.10	0.080	0.027
59229-75-3	2,6-diamino-4-nitrotoluene	0.90	U	1.0	0.90	0.22
606-20-2	2,6-Dinitrotoluene	0.080	U	0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	0.10	U	0.11	0.10	0.051
88-72-2	2-Nitrotoluene	0.20	U	0.21	0.20	0.086
618-87-1	3,5-Dinitroaniline	0.30	U	0.40	0.30	0.13
99-08-1	3-Nitrotoluene	0.35	U	0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	0.12	U	0.15	0.12	0.058
99-99-0	4-Nitrotoluene	0.40	U	0.41	0.40	0.10
80251-29-2	DNX	0.25	U	0.50	0.25	0.097
2691-41-0	HMX	0.20	U	0.21	0.20	0.088
5755-27-1	MNX	0.148	J	0.50	0.29	0.093
98-95-3	Nitrobenzene	0.20	U	0.21	0.20	0.091
55-63-0	Nitroglycerin	2.0	U	2.1	2.0	0.92
78-11-5	PETN	1.0	U	1.1	1.0	0.45
121-82-4	RDX	0.20	U	0.21	0.20	0.052
479-45-8	Tetryl	0.10	U	0.11	0.10	0.032
13980-04-6	TNX	0.25	U	0.50	0.25	0.079

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120011.D
Lims ID: MB 280-629324/1-A
Client ID:
Sample Type: MB
Inject. Date: 12-Oct-2023 14:06:09 ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-629324/1-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

First Level Reviewer: LV5D Date: 12-Oct-2023 16:23:35

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
1	Triamine Trinitrobenzene	1		2.444				ND	
2	2,6-diamino-4-nitrotoluene	1		6.435				ND	7
3	TNX	1		6.443				ND	
4	HMX	1		6.570				ND	
5	2,4-diamino-6-nitrotoluene	1		6.629				ND	
6	DNX	1		6.770				ND	
7	MNX	1	7.205	7.190	0.015	2052		0.0148	
8	RDX	1		7.570				ND	
9	2,4,6-Trinitrophenol	1		7.943				ND	
$ 10	1,2-Dinitrobenzene	1	8.512	8.510	0.002	24579	0.2000	0.1984	
11	1,3,5-Trinitrobenzene	1		8.637				ND	U
12	1,3-Dinitrobenzene	1		9.243				ND	
13	Nitrobenzene	1		9.610				ND	
14	3,5-Dinitroaniline	1		9.823				ND	
15	Tetryl	1		9.956				ND	
16	Nitroglycerin	2		10.403				ND	
17	2,4,6-Trinitrotoluene	1		10.836				ND	
18	4-Amino-2,6-dinitrotoluene	1		11.010				ND	
19	2-Amino-4,6-dinitrotoluene	1		11.256				ND	
20	2,6-Dinitrotoluene	1		11.416				ND	
21	2,4-Dinitrotoluene	1		11.583				ND	
22	o-Nitrotoluene	1		12.383				ND	7
23	p-Nitrotoluene	1		12.790				ND	
24	m-Nitrotoluene	1		13.350				ND	
25	PETN	2		14.463				ND	
26	Ammonium Picrate	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

Review Flags
U - Marked Undetected

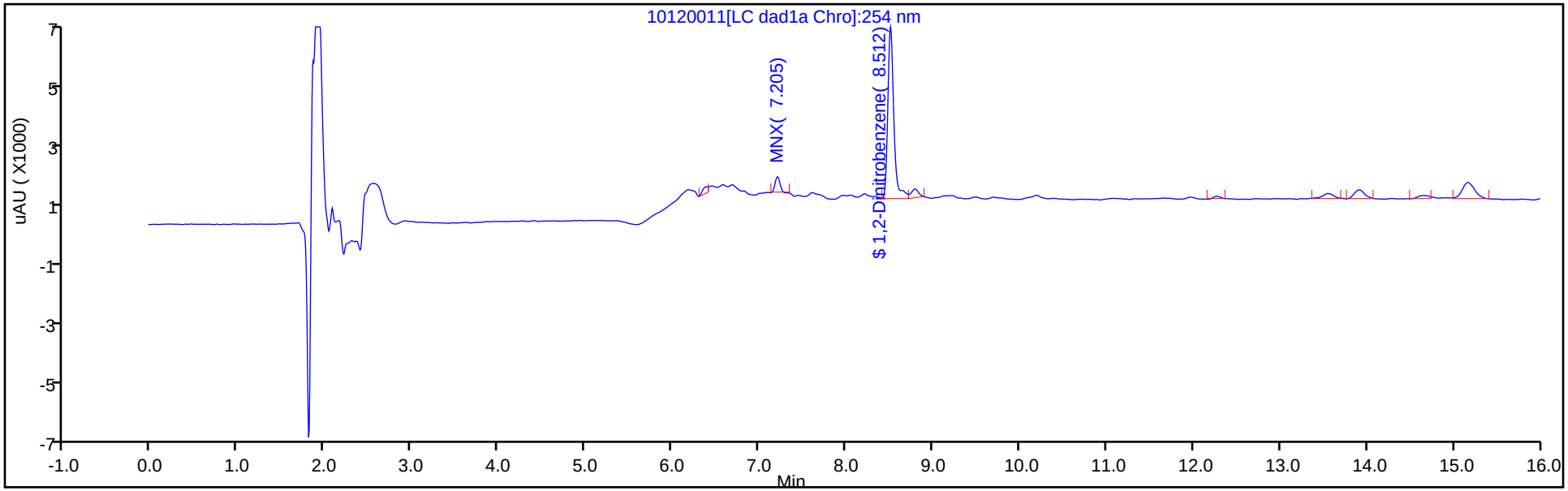
Report Date: 13-Oct-2023 09:16:34 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

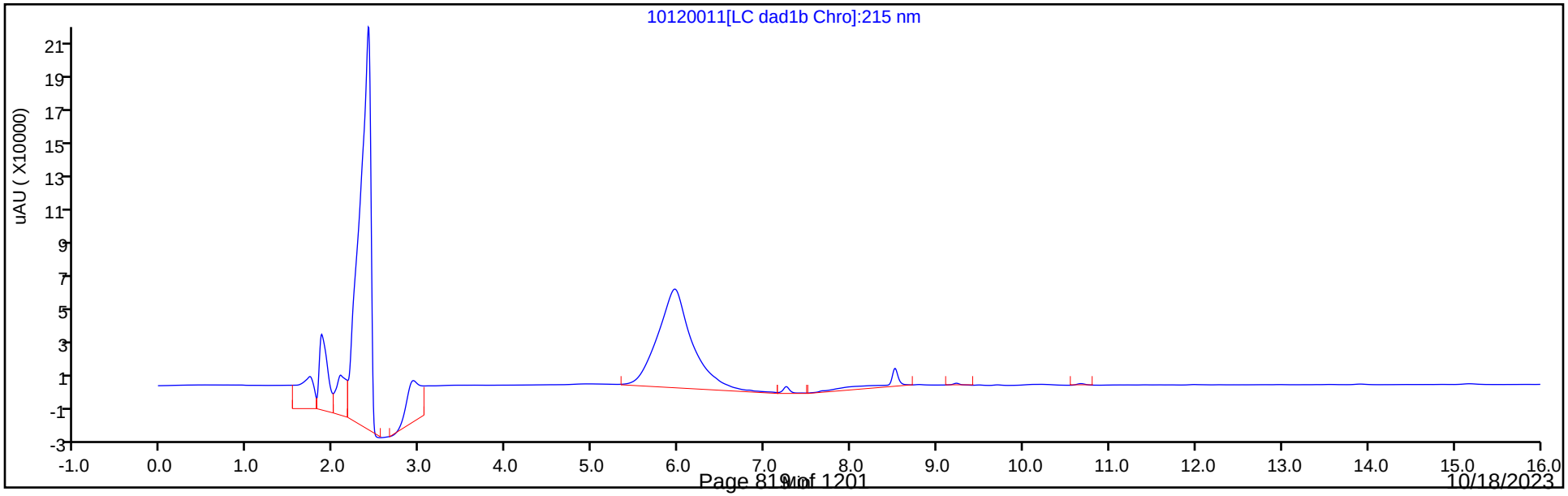
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120011.d

Injection Date:	12-Oct-2023 14:06:09	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	MB 280-629324/1-A			Worklist Smp#:	11
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120011.D				
Lims ID:	MB 280-629324/1-A				
Client ID:					
Sample Type:	MB				
Inject. Date:	12-Oct-2023 14:06:09	ALS Bottle#:	11	Worklist Smp#:	11
Injection Vol:	100.0 ul	Dil. Factor:	1.0000		
Sample Info:	MB 280-629324/1-A				
Operator ID:	JZ/JG	Instrument ID:	CHHPLC_X3		
Method:	\\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m				
Limit Group:	GCSV - 8330				
Last Update:	13-Oct-2023 09:16:33	Calib Date:	24-Jun-2023 00:23:49		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D				
Column 1 :	UltraCarb5uODS (20) (4.60 mm)		Det: LC DAD1B, 254 nm		
Process Host:	CTX1652				

First Level Reviewer: LV5D Date: 12-Oct-2023 16:23:35

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1984	99.18

User Disabled Compound Report

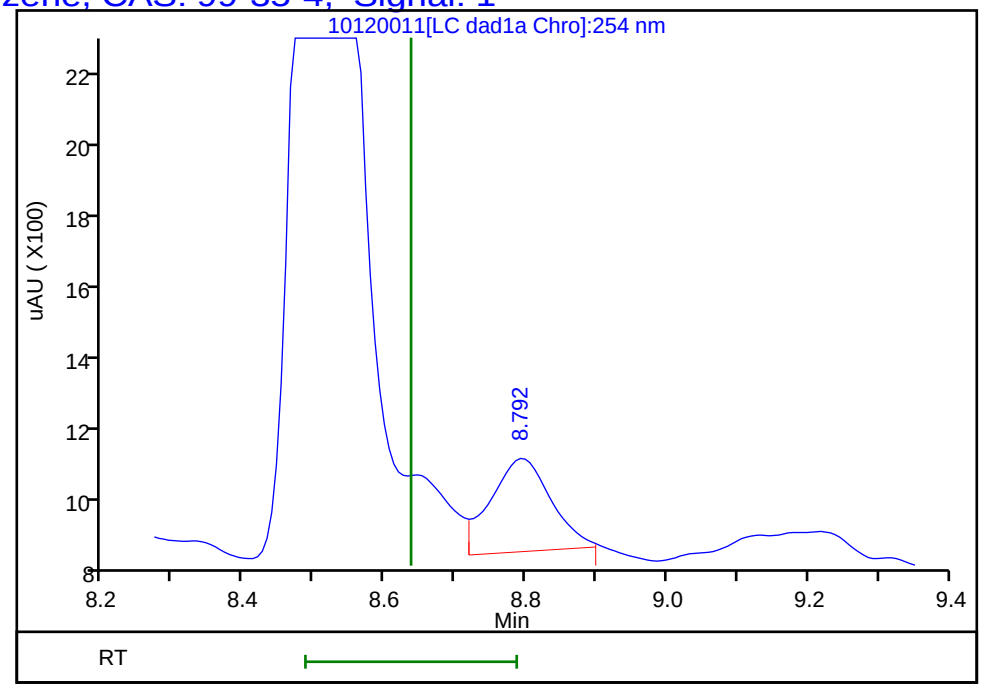
Eurofins Denver

Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120011.d
Injection Date: 12-Oct-2023 14:06:09 Instrument ID: CHHPLC_X3
Lims ID: MB 280-629324/1-A
Client ID:
Operator ID: JZ/JG ALS Bottle#: 11 Worklist Smp#: 11
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Method: 8330_X3 Limit Group: GCSV - 8330

Column: UltraCarb5uODS (20) (4.60 mm) Detector LC DAD1B, 254 nm

11 1,3,5-Trinitrobenzene, CAS: 99-35-4, Signal: 1

RT: 8.79
Response: 1486
Amount: 0.006877



Reviewer: LV5D, 12-Oct-2023 16:23:35
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-629324/2-A

Matrix: Water | Lab File ID: 10120012.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 500(mL) | Date Analyzed: 10/12/2023 14:29

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.08		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	1.96		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.89		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.89		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.86		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.81		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.54		0.21	0.20	0.086
618-87-1	3,5-Dinitroaniline	1.70		0.40	0.30	0.13
99-08-1	3-Nitrotoluene	1.61		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.64		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.50		0.41	0.40	0.10
80251-29-2	DNX	2.24		0.50	0.25	0.097
2691-41-0	HMX	2.04		0.21	0.20	0.088
5755-27-1	MNX	2.40		0.50	0.29	0.093
98-95-3	Nitrobenzene	1.69		0.21	0.20	0.091
55-63-0	Nitroglycerin	20.3		2.1	2.0	0.92
78-11-5	PETN	20.6		1.1	1.0	0.45
121-82-4	RDX	2.00		0.21	0.20	0.052
479-45-8	Tetryl	1.96		0.11	0.10	0.032
13980-04-6	TNX	2.08		0.50	0.25	0.079

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120012.D
Lims ID: LCS 280-629324/2-A
Client ID:
Sample Type: LCS
Inject. Date: 12-Oct-2023 14:29:03 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-629324/2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.447	6.443	0.004	41658	0.2002	0.2075	
4 HMX	1	6.574	6.570	0.004	19274	0.2000	0.2045	
6 DNX	1	6.774	6.770	0.004	32379	0.2008	0.2241	
7 MNX	1	7.194	7.190	0.004	33301	0.2342	0.2401	
8 RDX	1	7.574	7.570	0.004	22139	0.2000	0.2004	
9 2,4,6-Trinitrophenol	1	7.940	7.943	-0.003	18020	0.2000	0.2314	
$ 10 1,2-Dinitrobenzene	1	8.520	8.510	0.010	23753	0.2000	0.1917	
11 1,3,5-Trinitrobenzene	1	8.647	8.637	0.010	44872	0.2000	0.2077	
12 1,3-Dinitrobenzene	1	9.260	9.243	0.017	57509	0.2000	0.1960	
13 Nitrobenzene	1	9.627	9.610	0.017	32635	0.2000	0.1694	
14 3,5-Dinitroaniline	1	9.847	9.823	0.024	38133	0.2000	0.1699	
15 Tetryl	1	9.980	9.956	0.024	32812	0.2000	0.1962	
16 Nitroglycerin	2	10.433	10.403	0.030	131442	2.00	2.03	
17 2,4,6-Trinitrotoluene	1	10.873	10.836	0.037	38694	0.2000	0.1888	
18 4-Amino-2,6-dinitrotoluene	1	11.047	11.010	0.037	24537	0.2000	0.1641	
19 2-Amino-4,6-dinitrotoluene	1	11.293	11.256	0.037	34984	0.2000	0.1806	
20 2,6-Dinitrotoluene	1	11.453	11.416	0.037	26496	0.2000	0.1858	
21 2,4-Dinitrotoluene	1	11.620	11.583	0.037	55915	0.2000	0.1891	
22 o-Nitrotoluene	1	12.433	12.383	0.050	19386	0.2000	0.1537	
23 p-Nitrotoluene	1	12.847	12.790	0.057	16493	0.2000	0.1498	
24 m-Nitrotoluene	1	13.407	13.350	0.057	22330	0.2000	0.1608	
25 PETN	2	14.547	14.463	0.084	148273	2.00	2.06	

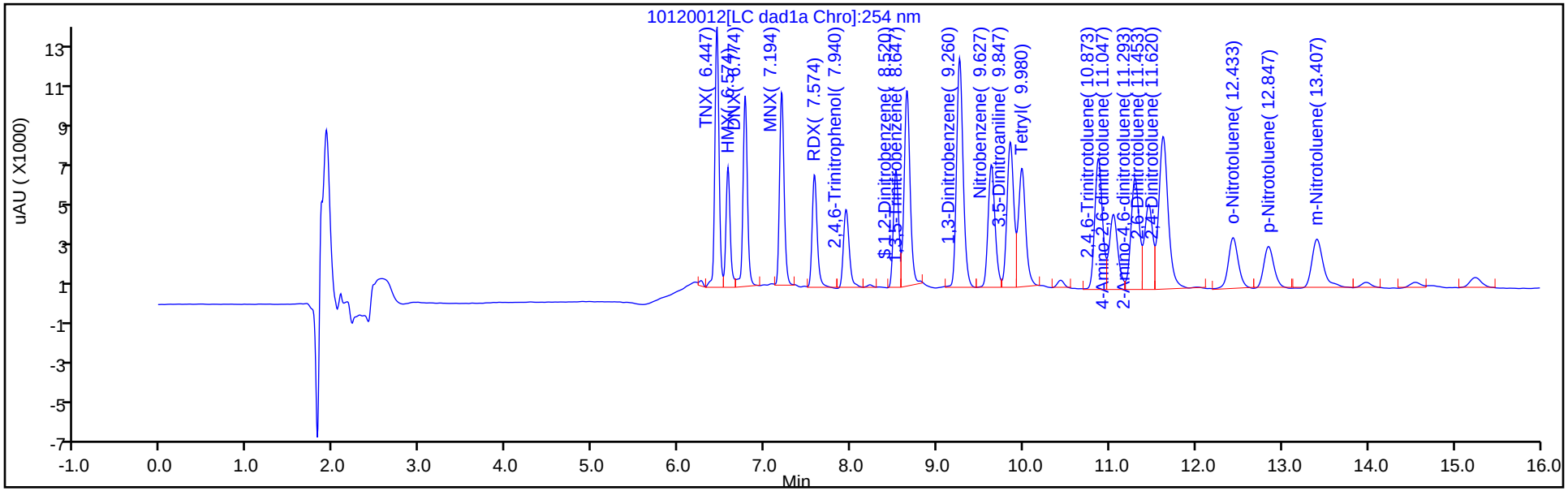
Report Date: 13-Oct-2023 09:16:35 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

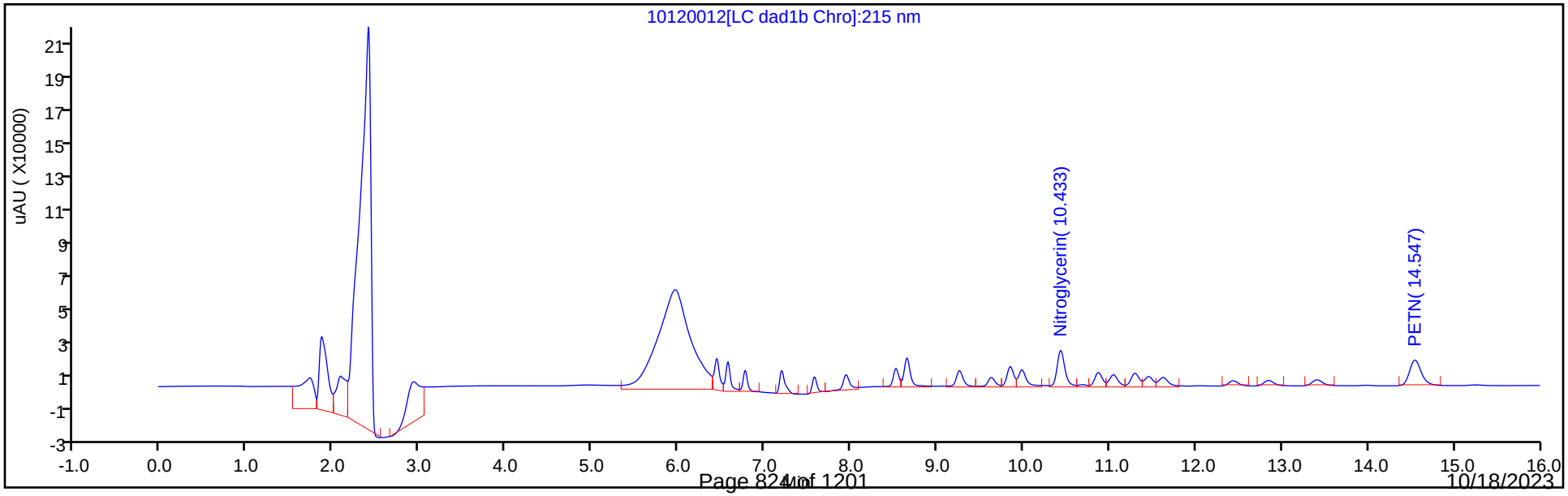
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120012.d

Injection Date:	12-Oct-2023 14:29:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCS 280-629324/2-A			Worklist Smp#:	12
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



10/18/2023
8:21 PM

Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120012.D
Lims ID: LCS 280-629324/2-A
Client ID:
Sample Type: LCS
Inject. Date: 12-Oct-2023 14:29:03 ALS Bottle#: 12 Worklist Smp#: 12
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-629324/2-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1917	95.85

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-629324/4-A

Matrix: Water | Lab File ID: 10120014.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 500(mL) | Date Analyzed: 10/12/2023 15:15

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
6629-29-4	2,4-diamino-6-nitrotoluene	1.42		1.0	0.90	0.43
59229-75-3	2,6-diamino-4-nitrotoluene	1.52		1.0	0.90	0.22

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120014.D
Lims ID: LCS 280-629324/4-A
Client ID:
Sample Type: LCS
Inject. Date: 12-Oct-2023 15:15:03 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-629324/4-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
2	2,6-diamino-4-nitrotoluene	1	6.444	6.435	0.009	34238	0.2000	0.1518	
5	2,4-diamino-6-nitrotoluene	1	6.631	6.629	0.002	20386	0.2000	0.1422	
$ 10	1,2-Dinitrobenzene	1	8.524	8.510	0.014	25885	0.2000	0.2089	

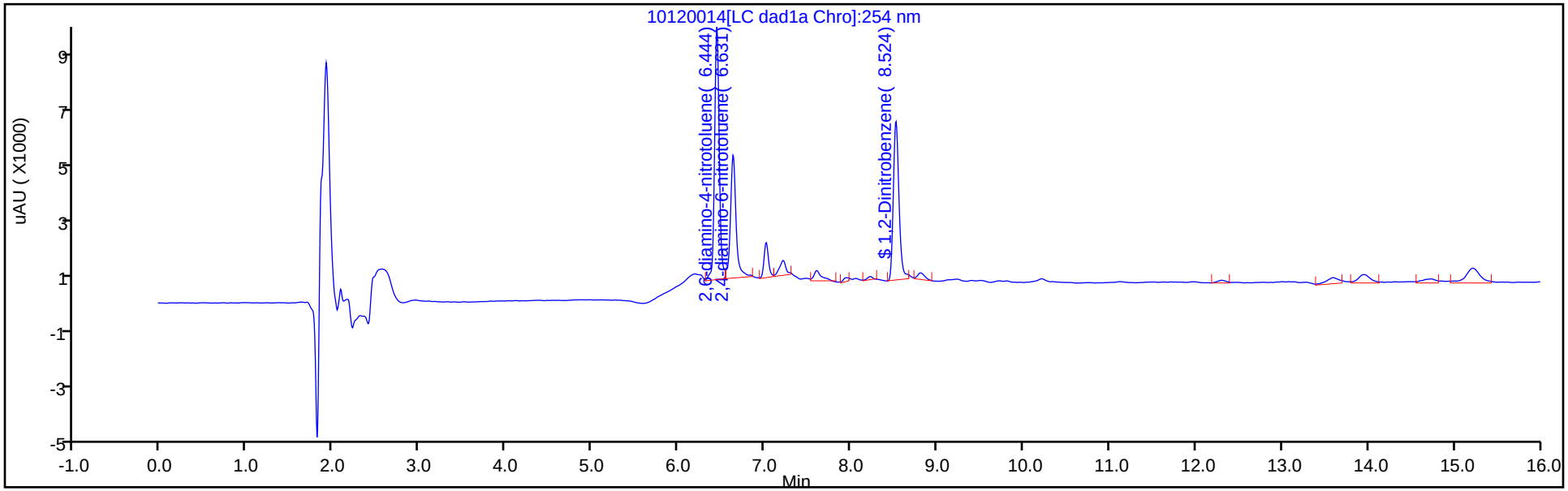
Report Date: 13-Oct-2023 09:16:36 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

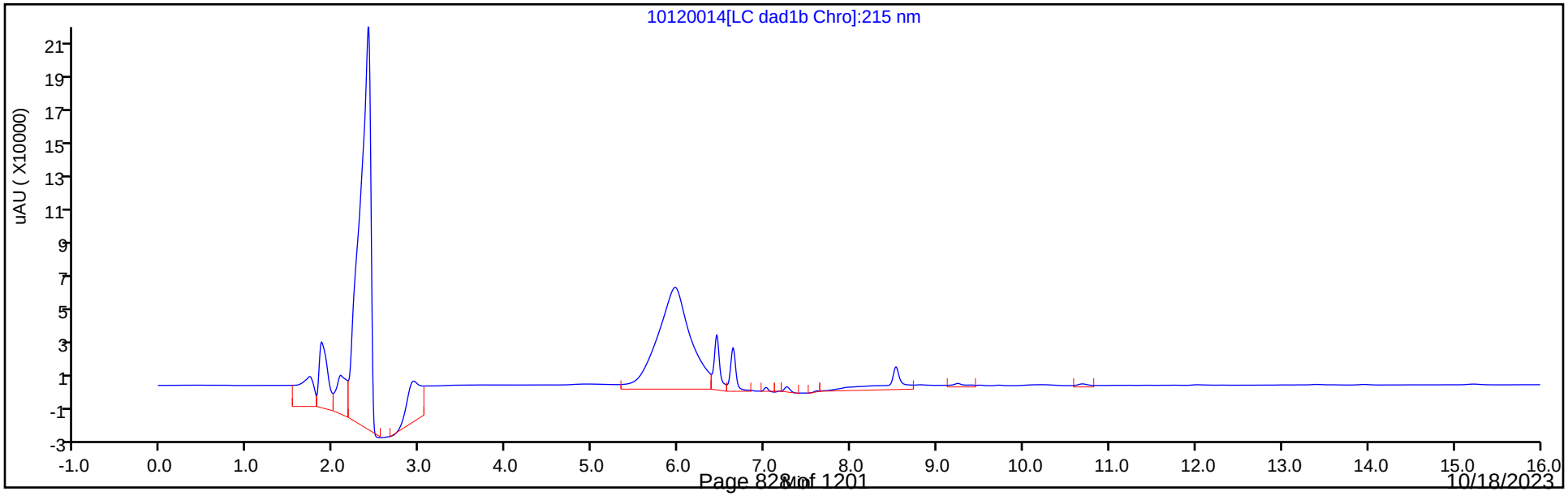
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120014.d

Injection Date:	12-Oct-2023 15:15:03	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCS 280-629324/4-A			Worklist Smp#:	14
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120014.D
Lims ID: LCS 280-629324/4-A
Client ID:
Sample Type: LCS
Inject. Date: 12-Oct-2023 15:15:03 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-629324/4-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2089	104.45

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-629324/3-A

Matrix: Water | Lab File ID: 10120013.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 500(mL) | Date Analyzed: 10/12/2023 14:51

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	1,3,5-Trinitrobenzene	2.00		0.21	0.20	0.084
99-65-0	1,3-Dinitrobenzene	2.00		0.11	0.10	0.037
118-96-7	2,4,6-Trinitrotoluene	1.93		0.11	0.10	0.045
121-14-2	2,4-Dinitrotoluene	1.91		0.10	0.080	0.027
606-20-2	2,6-Dinitrotoluene	1.92		0.10	0.080	0.040
35572-78-2	2-Amino-4,6-dinitrotoluene	1.90		0.11	0.10	0.051
88-72-2	2-Nitrotoluene	1.64		0.21	0.20	0.086
618-87-1	3,5-Dinitroaniline	1.77		0.40	0.30	0.13
99-08-1	3-Nitrotoluene	1.72		0.40	0.35	0.20
19406-51-0	4-Amino-2,6-dinitrotoluene	1.82		0.15	0.12	0.058
99-99-0	4-Nitrotoluene	1.60		0.41	0.40	0.10
80251-29-2	DNX	2.24		0.50	0.25	0.097
2691-41-0	HMX	2.08		0.21	0.20	0.088
5755-27-1	MNX	2.44		0.50	0.29	0.093
98-95-3	Nitrobenzene	1.77		0.21	0.20	0.091
55-63-0	Nitroglycerin	19.9		2.1	2.0	0.92
78-11-5	PETN	20.6		1.1	1.0	0.45
121-82-4	RDX	1.98		0.21	0.20	0.052
479-45-8	Tetryl	2.00		0.11	0.10	0.032
13980-04-6	TNX	2.08		0.50	0.25	0.079

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120013.D
Lims ID: LCSD 280-629324/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 12-Oct-2023 14:51:58 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-629324/3-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
3 TNX	1	6.441	6.443	-0.002	41702	0.2002	0.2077	
4 HMX	1	6.568	6.570	-0.002	19565	0.2000	0.2076	
6 DNX	1	6.768	6.770	-0.002	32336	0.2008	0.2238	
7 MNX	1	7.194	7.190	0.004	33820	0.2342	0.2439	
8 RDX	1	7.574	7.570	0.004	21917	0.2000	0.1984	
9 2,4,6-Trinitrophenol	1	7.941	7.943	-0.002	18496	0.2000	0.2375	
$ 10 1,2-Dinitrobenzene	1	8.514	8.510	0.004	23645	0.2000	0.1908	
11 1,3,5-Trinitrobenzene	1	8.641	8.637	0.004	43307	0.2000	0.2004	
12 1,3-Dinitrobenzene	1	9.247	9.243	0.004	58774	0.2000	0.2004	
13 Nitrobenzene	1	9.614	9.610	0.004	34137	0.2000	0.1772	
14 3,5-Dinitroaniline	1	9.834	9.823	0.011	39713	0.2000	0.1769	
15 Tetryl	1	9.961	9.956	0.005	33528	0.2000	0.2005	
16 Nitroglycerin	2	10.407	10.403	0.004	128848	2.00	1.99	
17 2,4,6-Trinitrotoluene	1	10.847	10.836	0.011	39444	0.2000	0.1925	
18 4-Amino-2,6-dinitrotoluene	1	11.014	11.010	0.004	27158	0.2000	0.1816	
19 2-Amino-4,6-dinitrotoluene	1	11.267	11.256	0.011	36891	0.2000	0.1904	
20 2,6-Dinitrotoluene	1	11.427	11.416	0.011	27437	0.2000	0.1924	
21 2,4-Dinitrotoluene	1	11.594	11.583	0.011	56572	0.2000	0.1913	
22 o-Nitrotoluene	1	12.394	12.383	0.011	20651	0.2000	0.1637	
23 p-Nitrotoluene	1	12.801	12.790	0.011	17660	0.2000	0.1604	
24 m-Nitrotoluene	1	13.361	13.350	0.011	23791	0.2000	0.1716	
25 PETN	2	14.481	14.463	0.018	148173	2.00	2.06	

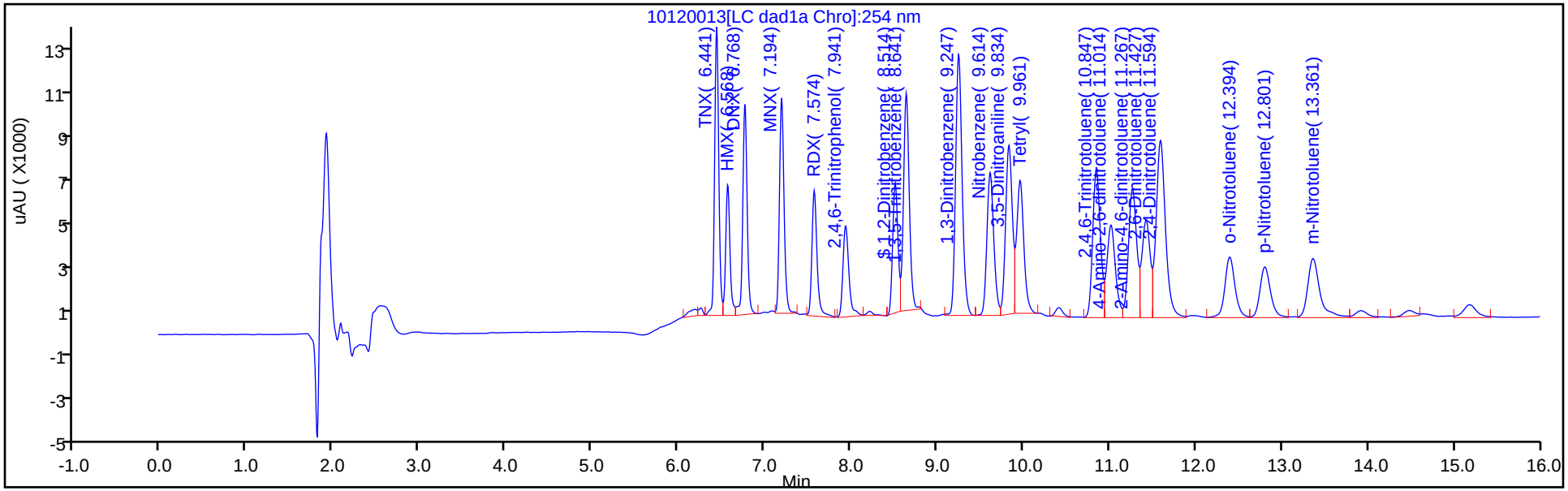
Report Date: 13-Oct-2023 09:16:36 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

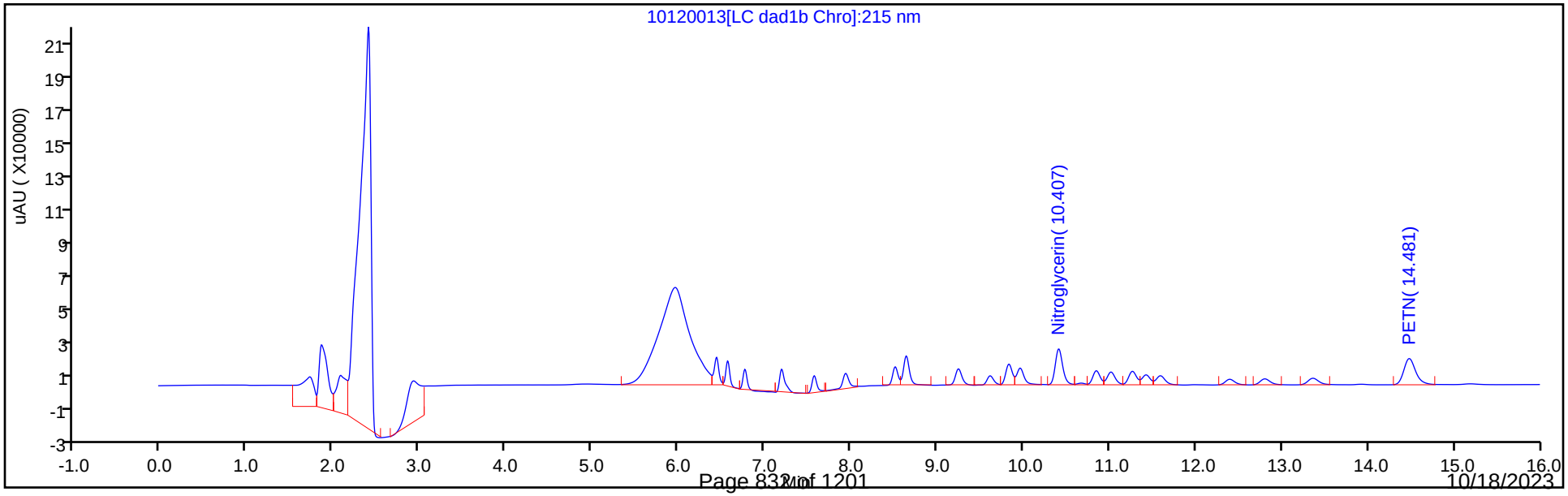
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120013.d

Injection Date:	12-Oct-2023 14:51:58	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCSD 280-629324/3-A			Worklist Smp#:	13
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120013.D
Lims ID: LCSD 280-629324/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 12-Oct-2023 14:51:58 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-629324/3-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.1908	95.41

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-629324/5-A

Matrix: Water | Lab File ID: 10120015.D

Analysis Method: 8330B | Date Collected:

Extraction Method: 3535 | Date Extracted: 10/11/2023 13:57

Sample wt/vol: 500(mL) | Date Analyzed: 10/12/2023 15:37

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 100(uL) | GC Column: UltraCarb5uODS ID: 4.6(mm)

% Moisture: % Solids: | GPC Cleanup:(Y/N) N

Cleanup Factor:

Analysis Batch No.: 629481 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
6629-29-4	2,4-diamino-6-nitrotoluene	1.58		1.0	0.90	0.43
59229-75-3	2,6-diamino-4-nitrotoluene	1.70		1.0	0.90	0.22

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	105		83-119

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120015.D
Lims ID: LCSD 280-629324/5-A
Client ID:
Sample Type: LCSD
Inject. Date: 12-Oct-2023 15:37:59 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-629324/5-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

	Compound	Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/mL	OnCol Amt ug/mL	Flags
	2 2,6-diamino-4-nitrotoluene	1	6.444	6.435	0.009	38250	0.2000	0.1696	
	5 2,4-diamino-6-nitrotoluene	1	6.631	6.629	0.002	22645	0.2000	0.1580	
$	10 1,2-Dinitrobenzene	1	8.524	8.510	0.014	25937	0.2000	0.2093	

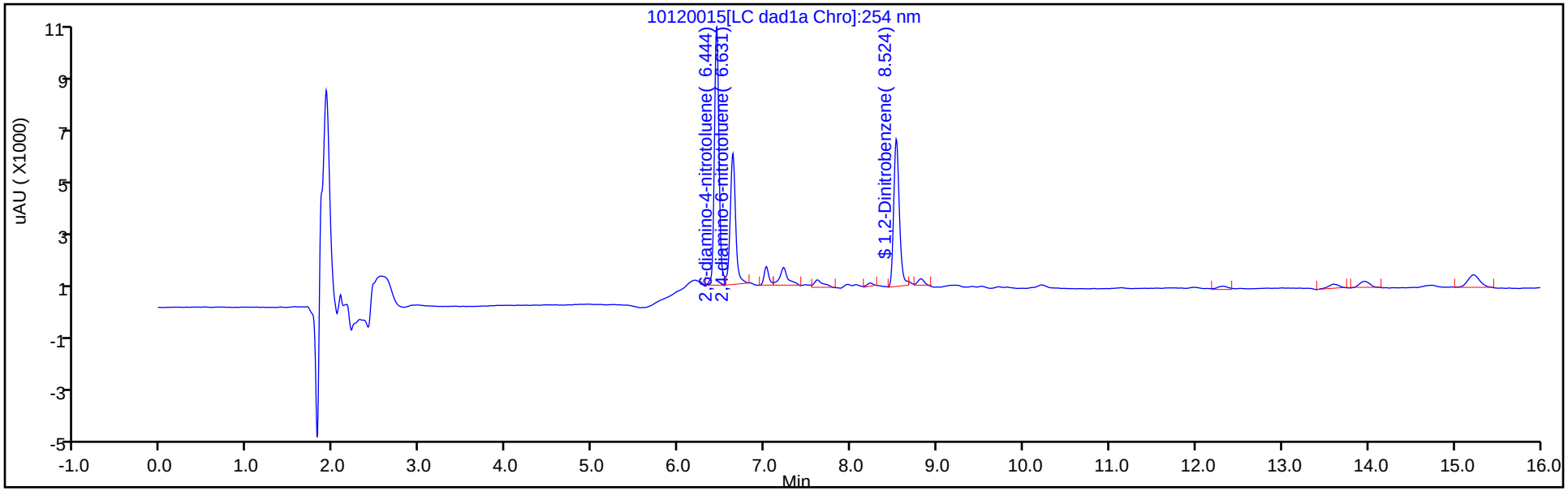
Report Date: 13-Oct-2023 09:16:37 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

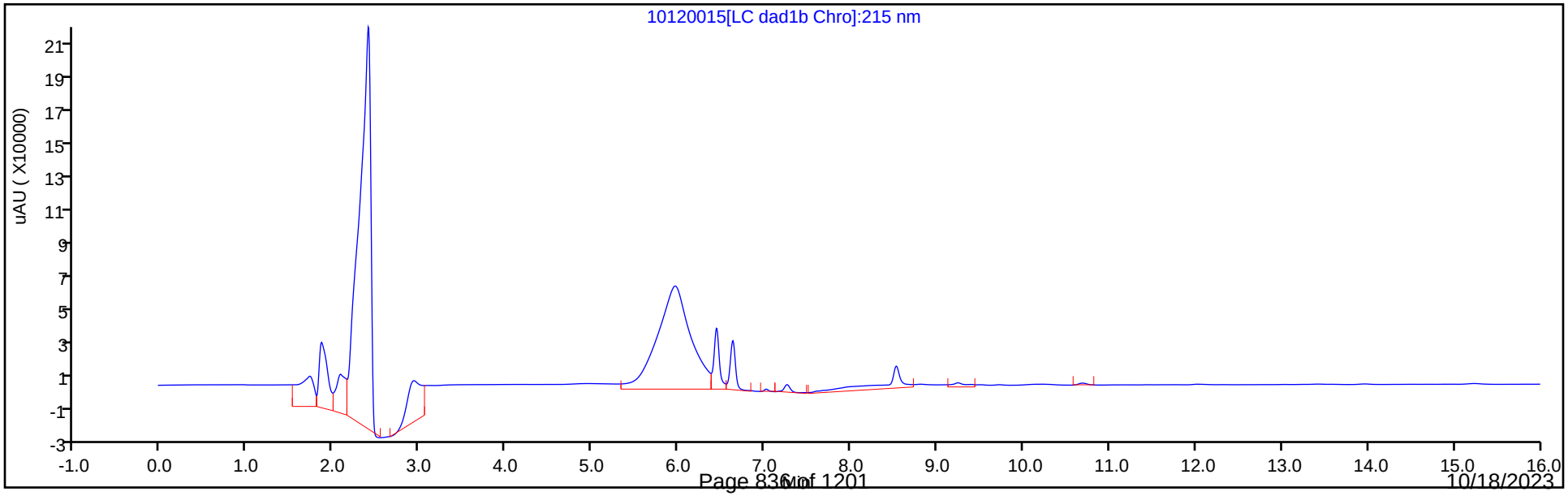
Data File: \\chromfs\denver\chromdata\chhplc_x\20231012-126452.b\10120015.d

Injection Date:	12-Oct-2023 15:37:59	Instrument ID:	CHHPLC_X3	Operator ID:	JZ/JG
Lims ID:	LCSD 280-629324/5-A			Worklist Smp#:	15
Client ID:					
Injection Vol:	100.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	8330_X3	Limit Group:	GCSV - 8330		

Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Column: UltraCarb5uODS (20) (4.60 mm) Y Scaling: Method Defined: Scale to the Nth Largest Peak: 1



Eurofins Denver
Recovery Report

Data File: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\10120015.D
Lims ID: LCSD 280-629324/5-A
Client ID:
Sample Type: LCSD
Inject. Date: 12-Oct-2023 15:37:59 ALS Bottle#: 15 Worklist Smp#: 15
Injection Vol: 100.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-629324/5-A
Operator ID: JZ/JG Instrument ID: CHHPLC_X3

Method: \\chromfs\Denver\ChromData\CHHPLC_X\20231012-126452.b\8330_X3.m
Limit Group: GCSV - 8330
Last Update: 13-Oct-2023 09:16:33 Calib Date: 24-Jun-2023 00:23:49
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\CHHPLC_X\20230623-122860.b\06230028.D

Column 1 : UltraCarb5uODS (20) (4.60 mm) Det: LC DAD1B, 254 nm
Process Host: CTX1652

Compound	Amount Added	Amount Recovered	% Rec.
$ 10 1,2-Dinitrobenzene	0.2000	0.2093	104.66

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 06/23/2023 17:53

Analysis Batch Number: 617295 End Date: 06/24/2023 00:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-617295/11		06/23/2023 17:53	1	06230011.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/12		06/23/2023 18:16	1	06230012.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/13		06/23/2023 18:39	1	06230013.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/14		06/23/2023 19:02	1	06230014.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/15		06/23/2023 19:25	1	06230015.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/16		06/23/2023 19:48	1	06230016.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/17		06/23/2023 20:11	1	06230017.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/18		06/23/2023 20:34	1	06230018.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/19		06/23/2023 20:57	1	06230019.D	UltraCarb5uODS 4.6(mm)
ICV 280-617295/20		06/23/2023 21:20	1	06230020.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/21		06/23/2023 21:43	1	06230021.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/22		06/23/2023 22:06	1	06230022.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/23		06/23/2023 22:29	1	06230023.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/24		06/23/2023 22:52	1	06230024.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/25		06/23/2023 23:14	1	06230025.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/26		06/23/2023 23:37	1	06230026.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/27		06/24/2023 00:00	1	06230027.D	UltraCarb5uODS 4.6(mm)
IC 280-617295/28		06/24/2023 00:23	1	06230028.D	UltraCarb5uODS 4.6(mm)
ICV 280-617295/29		06/24/2023 00:46	1	06230029.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 09/20/2023 20:01

Analysis Batch Number: 626878 End Date: 09/21/2023 06:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 280-626878/10		09/20/2023 20:01	1	09200010.D	Luna-phenylhex 4.6(mm)
IC 280-626878/11		09/20/2023 20:36	1	09200011.D	Luna-phenylhex 4.6(mm)
IC 280-626878/12		09/20/2023 21:11	1	09200012.D	Luna-phenylhex 4.6(mm)
IC 280-626878/13		09/20/2023 21:45	1	09200013.D	Luna-phenylhex 4.6(mm)
IC 280-626878/14		09/20/2023 22:20	1	09200014.D	Luna-phenylhex 4.6(mm)
IC 280-626878/15		09/20/2023 22:55	1	09200015.D	Luna-phenylhex 4.6(mm)
IC 280-626878/16		09/20/2023 23:30	1	09200016.D	Luna-phenylhex 4.6(mm)
IC 280-626878/17		09/21/2023 00:05	1	09200017.D	Luna-phenylhex 4.6(mm)
IC 280-626878/18		09/21/2023 00:40	1	09200018.D	Luna-phenylhex 4.6(mm)
ICV 280-626878/19		09/21/2023 01:15	1	09200019.D	Luna-phenylhex 4.6(mm)
IC 280-626878/20		09/21/2023 01:50	1	09200020.D	Luna-phenylhex 4.6(mm)
IC 280-626878/21		09/21/2023 02:25	1	09200021.D	Luna-phenylhex 4.6(mm)
IC 280-626878/22		09/21/2023 03:00	1	09200022.D	Luna-phenylhex 4.6(mm)
IC 280-626878/23		09/21/2023 03:35	1	09200023.D	Luna-phenylhex 4.6(mm)
IC 280-626878/24		09/21/2023 04:10	1	09200024.D	Luna-phenylhex 4.6(mm)
IC 280-626878/25		09/21/2023 04:45	1	09200025.D	Luna-phenylhex 4.6(mm)
IC 280-626878/26		09/21/2023 05:20	1	09200026.D	Luna-phenylhex 4.6(mm)
IC 280-626878/27		09/21/2023 05:55	1	09200027.D	Luna-phenylhex 4.6(mm)
ICV 280-626878/28		09/21/2023 06:30	1	09200028.D	Luna-phenylhex 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 10/12/2023 13:20

Analysis Batch Number: 629481 End Date: 10/13/2023 03:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-629481/8		10/12/2023 13:20	1	10120008.D	UltraCarb5uODS 4.6(mm)
CCV 280-629481/9		10/12/2023 13:43	1	10120009.D	UltraCarb5uODS 4.6(mm)
MB 280-629324/1-A		10/12/2023 14:06	1	10120011.D	UltraCarb5uODS 4.6(mm)
LCS 280-629324/2-A		10/12/2023 14:29	1	10120012.D	UltraCarb5uODS 4.6(mm)
LCSD 280-629324/3-A		10/12/2023 14:51	1	10120013.D	UltraCarb5uODS 4.6(mm)
LCS 280-629324/4-A		10/12/2023 15:15	1	10120014.D	UltraCarb5uODS 4.6(mm)
LCSD 280-629324/5-A		10/12/2023 15:37	1	10120015.D	UltraCarb5uODS 4.6(mm)
280-182443-1	WBGmw-020-230901-GW	10/12/2023 16:00	1	10120016.D	UltraCarb5uODS 4.6(mm)
280-182443-2	WBGmw-009-230901-GW	10/12/2023 16:23	1	10120017.D	UltraCarb5uODS 4.6(mm)
280-182443-3	WBGmw-014-230901-GW	10/12/2023 16:46	1	10120018.D	UltraCarb5uODS 4.6(mm)
280-182443-4	WBGmw-006-230901-GW	10/12/2023 17:09	1	10120019.D	UltraCarb5uODS 4.6(mm)
280-182443-5	WBGmw-016-230901-GW	10/12/2023 17:32	1	10120020.D	UltraCarb5uODS 4.6(mm)
CCV 280-629481/21		10/12/2023 17:55	1	10120021.D	UltraCarb5uODS 4.6(mm)
CCV 280-629481/22		10/12/2023 18:18	1	10120022.D	UltraCarb5uODS 4.6(mm)
280-182443-6	WBGmw-021-230901-GW	10/12/2023 18:41	1	10120023.D	UltraCarb5uODS 4.6(mm)
280-182443-7	WBGmw-018-230901-GW	10/12/2023 19:04	1	10120024.D	UltraCarb5uODS 4.6(mm)
280-182443-8	WBGMW-RB-018-2023	10/12/2023 19:27	1	10120025.D	UltraCarb5uODS 4.6(mm)
280-182443-9	WBGmw-017-230901-GW	10/12/2023 19:50	1	10120026.D	UltraCarb5uODS 4.6(mm)
280-182443-10	FBQmw-175-230901-GW	10/12/2023 20:13	1	10120027.D	UltraCarb5uODS 4.6(mm)
280-182443-11	FBQmw-175-230902-GW	10/12/2023 20:36	1	10120028.D	UltraCarb5uODS 4.6(mm)
CCV 280-629481/32		10/12/2023 22:08	1	10120032.D	UltraCarb5uODS 4.6(mm)
CCV 280-629481/33		10/12/2023 22:31	1	10120033.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		10/12/2023 23:40	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 00:02	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 00:25	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 00:48	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 01:11	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 01:34	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 01:57	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 02:20	1		UltraCarb5uODS 4.6(mm)
CCV 280-629481/44		10/13/2023 02:43	1		UltraCarb5uODS 4.6(mm)
CCV 280-629481/45		10/13/2023 03:06	1		UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X3 Start Date: 10/13/2023 14:34

Analysis Batch Number: 629671 End Date: 10/13/2023 17:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-629671/8		10/13/2023 14:34	1	10130008.D	UltraCarb5uODS 4.6(mm)
CCV 280-629671/9		10/13/2023 14:57	1	10130009.D	UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 15:20	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 15:43	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 16:06	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 16:29	1		UltraCarb5uODS 4.6(mm)
ZZZZZ		10/13/2023 16:52	1		UltraCarb5uODS 4.6(mm)
CCV 280-629671/16		10/13/2023 17:15	1	10130016.D	UltraCarb5uODS 4.6(mm)
CCV 280-629671/17		10/13/2023 17:38	1	10130017.D	UltraCarb5uODS 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: CHHPLC_X5 Start Date: 10/13/2023 16:43

Analysis Batch Number: 629680 End Date: 10/14/2023 05:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 280-629680/9		10/13/2023 16:43	1	10130009.D	Luna-phenylhex 4.6(mm)
ZZZZZ		10/13/2023 17:18	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/13/2023 17:53	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/13/2023 18:28	1		Luna-phenylhex 4.6(mm)
280-182443-2	WBGmw-009-230901-GW	10/13/2023 20:13	1	10130015.D	Luna-phenylhex 4.6(mm)
280-182443-4	WBGmw-006-230901-GW	10/13/2023 20:48	1	10130016.D	Luna-phenylhex 4.6(mm)
280-182443-6	WBGmw-021-230901-GW	10/13/2023 21:23	1	10130017.D	Luna-phenylhex 4.6(mm)
280-182443-7	WBGmw-018-230901-GW	10/13/2023 21:58	1	10130018.D	Luna-phenylhex 4.6(mm)
280-182443-8	WBGMW-RB-018-2023	10/13/2023 22:33	1	10130019.D	Luna-phenylhex 4.6(mm)
CCV 280-629680/20		10/13/2023 23:08	1	10130020.D	Luna-phenylhex 4.6(mm)
ZZZZZ		10/13/2023 23:43	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/14/2023 00:18	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/14/2023 00:53	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/14/2023 02:37	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/14/2023 03:12	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/14/2023 03:47	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/14/2023 04:22	1		Luna-phenylhex 4.6(mm)
ZZZZZ		10/14/2023 04:57	1		Luna-phenylhex 4.6(mm)
CCV 280-629680/31		10/14/2023 05:32	1		Luna-phenylhex 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 617295 Batch Start Date: 06/23/23 17:53 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	8330 DMT 00013	8330 LCS 00127	8330_ADDs 00037	8330_OP_DMT 00021	8330DiaminLCS 00058
IC 280-617295/11		8330B		1 mL	125 uL				
IC 280-617295/12		8330B		1 mL	50 uL				
IC 280-617295/13		8330B		1 mL	35 uL				
IC 280-617295/14		8330B		1 mL	20 uL				
IC 280-617295/15		8330B		1 mL	12.5 uL				
IC 280-617295/16		8330B		1 mL	5 uL				
IC 280-617295/17		8330B		1 mL	2.5 uL				
IC 280-617295/18		8330B		1 mL	1 uL				
IC 280-617295/19		8330B		1 mL	0.5 uL				
ICV 280-617295/20		8330B		1 mL		50 uL		50 uL	
IC 280-617295/21		8330B		1 mL			125 uL		
IC 280-617295/22		8330B		1 mL			50 uL		
IC 280-617295/23		8330B		1 mL			35 uL		
IC 280-617295/24		8330B		1 mL			20 uL		
IC 280-617295/25		8330B		1 mL			12.5 uL		
IC 280-617295/26		8330B		1 mL			5 uL		
IC 280-617295/27		8330B		1 mL			2 uL		
IC 280-617295/28		8330B		1 mL			1 uL		
ICV 280-617295/29		8330B		1 mL					50 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330IntermStk 00077	8330Surrogate 00146				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 617295 Batch Start Date: 06/23/23 17:53 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330IntermStk 00077	8330Surrogate 00146				
IC 280-617295/11		8330B		250 uL					
IC 280-617295/12		8330B		100 uL					
IC 280-617295/13		8330B		70 uL					
IC 280-617295/14		8330B		40 uL					
IC 280-617295/15		8330B		25 uL					
IC 280-617295/16		8330B		10 uL					
IC 280-617295/17		8330B		5 uL					
IC 280-617295/18		8330B		2 uL					
IC 280-617295/19		8330B		1 uL					
ICV 280-617295/20		8330B			50 uL				
IC 280-617295/21		8330B							
IC 280-617295/22		8330B							
IC 280-617295/23		8330B							
IC 280-617295/24		8330B							
IC 280-617295/25		8330B							
IC 280-617295/26		8330B							
IC 280-617295/27		8330B							
IC 280-617295/28		8330B							
ICV 280-617295/29		8330B							

Batch Notes	
Methanol ID	223237

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 617295 Batch Start Date: 06/23/23 17:53 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 626878 Batch Start Date: 09/20/23 20:01 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	8330 DMT 00015	8330 LCS 00130	8330_ADDs 00037	8330_OP_DMT 00022	8330DiaminLCS 00060
IC 280-626878/10		8330B		1 mL	125 uL				
IC 280-626878/11		8330B		1 mL	50 uL				
IC 280-626878/12		8330B		1 mL	35 uL				
IC 280-626878/13		8330B		1 mL	20 uL				
IC 280-626878/14		8330B		1 mL	12.5 uL				
IC 280-626878/15		8330B		1 mL	5 uL				
IC 280-626878/16		8330B		1 mL	2.5 uL				
IC 280-626878/17		8330B		1 mL	1 uL				
IC 280-626878/18		8330B		1 mL	0.5 uL				
ICV 280-626878/19		8330B		1 mL		50 uL		50 uL	
IC 280-626878/20		8330B		1 mL			125 uL		
IC 280-626878/21		8330B		1 mL			50 uL		
IC 280-626878/22		8330B		1 mL			35 uL		
IC 280-626878/23		8330B		1 mL			20 uL		
IC 280-626878/24		8330B		1 mL			12.5 uL		
IC 280-626878/25		8330B		1 mL			5 uL		
IC 280-626878/26		8330B		1 mL			2 uL		
IC 280-626878/27		8330B		1 mL			1 uL		
ICV 280-626878/28		8330B		1 mL					25 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330IntermStk 00078	8330Surrogate 00150				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 626878 Batch Start Date: 09/20/23 20:01 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330IntermStk 00078	8330Surrogate 00150				
IC 280-626878/10		8330B		250 uL					
IC 280-626878/11		8330B		100 uL					
IC 280-626878/12		8330B		70 uL					
IC 280-626878/13		8330B		40 uL					
IC 280-626878/14		8330B		25 uL					
IC 280-626878/15		8330B		10 uL					
IC 280-626878/16		8330B		5 uL					
IC 280-626878/17		8330B		2 uL					
IC 280-626878/18		8330B		1 uL					
ICV 280-626878/19		8330B			50 uL				
IC 280-626878/20		8330B							
IC 280-626878/21		8330B							
IC 280-626878/22		8330B							
IC 280-626878/23		8330B							
IC 280-626878/24		8330B							
IC 280-626878/25		8330B							
IC 280-626878/26		8330B							
IC 280-626878/27		8330B							
ICV 280-626878/28		8330B							

Batch Notes	
Methanol ID	230922

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 626878 Batch Start Date: 09/20/23 20:01 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629324 Batch Start Date: 10/11/23 13:57 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 10/11/23 17:46

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	8330 LCS 00131	8330_OP_DMT 00024
MB 280-629324/1		3535, 8330B				500 mL	5 mL		
LCS 280-629324/2		3535, 8330B				500 mL	5 mL	0.1 mL	0.1 mL
LCSD 280-629324/3		3535, 8330B				500 mL	5 mL	0.1 mL	0.1 mL
LCS 280-629324/4		3535, 8330B				500 mL	5 mL		
LCSD 280-629324/5		3535, 8330B				500 mL	5 mL		
280-182443-A-1	WBGmw-020-230901-GW	3535, 8330B	T	770.2 g	284.1 g	486.1 mL	5 mL		
280-182443-A-2	WBGmw-009-230901-GW	3535, 8330B	T	767.1 g	283.0 g	484.1 mL	5 mL		
280-182443-A-3	WBGmw-014-230901-GW	3535, 8330B	T	766.5 g	281.4 g	485.1 mL	5 mL		
280-182443-A-4	WBGmw-006-230901-GW	3535, 8330B	T	761.7 g	283.4 g	478.3 mL	5 mL		
280-182443-B-5	WBGmw-016-230901-GW	3535, 8330B	T	774.5 g	284.7 g	489.8 mL	5 mL		
280-182443-A-6	WBGmw-021-230901-GW	3535, 8330B	T	766.3 g	285.3 g	481 mL	5 mL		
280-182443-A-7	WBGmw-018-230901-GW	3535, 8330B	T	777.7 g	285.2 g	492.5 mL	5 mL		
280-182443-A-8	WBGMW-RB-018-2023	3535, 8330B	T	772.7 g	285.3 g	487.4 mL	5 mL		
280-182443-B-9	WBGmw-017-230901-GW	3535, 8330B	T	768.2 g	281.2 g	487 mL	5 mL		
280-182443-A-10	FBQmw-175-230901-GW	3535, 8330B	T	752.4 g	288.0 g	464.4 mL	5 mL		
280-182443-A-11	FBQmw-175-230902-GW	3535, 8330B	T	765.6 g	283.9 g	481.7 mL	5 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330DiaminLCS 00059	8330Surrogate 00151	AnalysisComment			
MB 280-629324/1		3535, 8330B			0.1 mL				
LCS 280-629324/2		3535, 8330B			0.1 mL	DMT			
LCSD 280-629324/3		3535, 8330B			0.1 mL	DMT			
LCS 280-629324/4		3535, 8330B		0.05 mL	0.1 mL	Diamino			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629324 Batch Start Date: 10/11/23 13:57 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 10/11/23 17:46

Lab Sample ID	Client Sample ID	Method Chain	Basis	8330DiaminLCS 00059	8330Surrogate 00151	AnalysisComment			
LCSD 280-629324/5		3535, 8330B		0.05 mL	0.1 mL	Diamino			
280-182443-A-1	WBGmw-020-230901-GW	3535, 8330B	T		0.1 mL				
280-182443-A-2	WBGmw-009-230901-GW	3535, 8330B	T		0.1 mL				
280-182443-A-3	WBGmw-014-230901-GW	3535, 8330B	T		0.1 mL				
280-182443-A-4	WBGmw-006-230901-GW	3535, 8330B	T		0.1 mL				
280-182443-B-5	WBGmw-016-230901-GW	3535, 8330B	T		0.1 mL				
280-182443-A-6	WBGmw-021-230901-GW	3535, 8330B	T		0.1 mL				
280-182443-A-7	WBGmw-018-230901-GW	3535, 8330B	T		0.1 mL				
280-182443-A-8	WBGMW-RB-018-2023	3535, 8330B	T		0.1 mL				
280-182443-B-9	WBGmw-017-230901-GW	3535, 8330B	T		0.1 mL				
280-182443-A-10	FBQmw-175-230901-GW	3535, 8330B	T		0.1 mL				
280-182443-A-11	FBQmw-175-230902-GW	3535, 8330B	T		0.1 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629324 Batch Start Date: 10/11/23 13:57 Batch Analyst: Hermanova, Eva

Batch Method: 3535 Batch End Date: 10/11/23 17:46

Batch Notes	
First Start time	10/11/2023 14:20
First End time	10/11/2023 17:06
SPE Cartridge Type	Sep-Pak Porapak Rdx
SPE Cartridge Lot ID	005433023A
Balance ID	24350888
Balance is Level? (Y/N)	yes
Manifold ID	Manifold: A, B
QC Bottle Lot ID	02024011
Pipette/Syringe/Dispenser ID	Dobby/ DOD/ Pugsley
Solvent Name	CaCl2
Solvent Lot #	CaCl2_Sol_00088
Rinse Solvent Name	Acetonotrile
Rinse Solvent Lot	Acetonotrile_00079
Acid Name	0.2% AAinACN
Acid ID	0.2% AAinACN_00001
Analyst ID - Spike Analyst	EH
Analyst ID - Spike Witness Analyst	Reviewer: DL
Batch Comment	DV-OP-0017

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HPLC/IC BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629671 Batch Start Date: 10/13/23 14:34 Batch Analyst: Zhang, Jian

Batch Method: 8330B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	8330 DMT 00015	8330_ADDs 00038	8330IntermStk 00078		
CCV 280-629671/8		8330B		1 mL	12.5 uL		25 uL		
CCV 280-629671/9		8330B		1 mL		12.5 uL			
CCV 280-629671/16		8330B		1 mL	12.5 uL		25 uL		
CCV 280-629671/17		8330B		1 mL		12.5 uL			

Batch Notes	
Methanol ID	232041

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG No.:

Project: RVAAP FWGW

Client Sample ID	Lab Sample ID
WBGmw-009-230901-GW	280-182443-2
WBGmw-006-230901-GW	280-182443-4
WBGmw-018-230901-GW	280-182443-7
WBGMW-RB-018-2023	280-182443-8

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WBGmw-009-230901-GW
Lab Sample ID: 280-182443-2
Lab Name: Eurofins Denver
Job No.: 280-182443-1
SDG ID.:
Matrix: Water
Date Sampled: 10/04/2023 10:00
Reporting Basis: WET
Date Received: 10/05/2023 10:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Nitrate as N	0.091	0.50	0.20	0.090	mg/L	J		1	9056
Nitrite as N	0.10	0.50	0.10	0.049	mg/L	U		1	9056
Sulfate	22	5.0	2.5	1.0	mg/L		J1	1	9056A
Total Organic Carbon - Average	0.91	1.0	0.80	0.35	mg/L	J		1	9060
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	EPA 9034
Alkalinity	340	10	6.4	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WBGmw-006-230901-GW
Lab Sample ID: 280-182443-4
Lab Name: Eurofins Denver
Job No.: 280-182443-1
SDG ID.:
Matrix: Water
Date Sampled: 10/04/2023 11:20
Reporting Basis: WET
Date Received: 10/05/2023 10:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Nitrate as N	0.20	0.50	0.20	0.090	mg/L	U		1	9056
Nitrite as N	0.10	0.50	0.10	0.049	mg/L	U		1	9056
Sulfate	27	5.0	2.5	1.0	mg/L			1	9056A
Total Organic Carbon - Average	1.1	1.0	0.80	0.35	mg/L			1	9060
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	EPA 9034
Alkalinity	280	10	6.4	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WBGmw-018-230901-GW
Lab Sample ID: 280-182443-7
Lab Name: Eurofins Denver
Job No.: 280-182443-1
SDG ID.:
Matrix: Water
Date Sampled: 10/04/2023 14:30
Reporting Basis: WET
Date Received: 10/05/2023 10:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Nitrate as N	0.43	0.50	0.20	0.090	mg/L	J		1	9056
Nitrite as N	0.10	0.50	0.10	0.049	mg/L	U		1	9056
Sulfate	12	5.0	2.5	1.0	mg/L			1	9056A
Total Organic Carbon - Average	1.3	1.0	0.80	0.35	mg/L			1	9060
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	EPA 9034
Alkalinity	50	10	6.4	3.1	mg/L			1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: WBGMW-RB-018-2023 Lab Sample ID: 280-182443-8

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG ID.:

Matrix: Water Date Sampled: 10/04/2023 16:00

Reporting Basis: WET Date Received: 10/05/2023 10:00

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Nitrate as N	0.20	0.50	0.20	0.090	mg/L	U		1	9056
Nitrite as N	0.10	0.50	0.10	0.049	mg/L	U		1	9056
Sulfate	2.5	5.0	2.5	1.0	mg/L	U		1	9056A
Total Organic Carbon - Average	1.0	1.0	0.80	0.35	mg/L			1	9060
Sulfide	2.0	4.0	2.0	1.6	mg/L	U		1	EPA 9034
Alkalinity	6.4	10	6.4	3.1	mg/L	U		1	SM 2320B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Analyst: MEC Batch Start Date: 08/16/2023

Reporting Units: mg/L Analytical Batch No.: 623067

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	10:08	Nitrate as N	3.95	4.00	99	90-110		IC ICV 5_00413
			Nitrite as N	4.14	4.00	104	90-110		IC ICV 5_00413
9	ICB	10:23	Nitrate as N	0.20				U	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Analyst: MEC Batch Start Date: 10/05/2023

Reporting Units: mg/L Analytical Batch No.: 628612

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:40	Nitrate as N	4.75	5.00	95	90-110		IC LCS_01981
			Nitrite as N	4.92	5.00	98	90-110		IC LCS_01981
2	CCB	12:55	Nitrate as N	0.20				U	
			Nitrite as N	0.10				U	
17	CCV	17:16	Nitrate as N	4.69	5.00	94	90-110		IC LCS_01981
			Nitrite as N	5.00	5.00	100	90-110		IC LCS_01981
18	CCB	17:31	Nitrate as N	0.20				U	
			Nitrite as N	0.10				U	
29	CCV	20:17	Nitrate as N	4.71	5.00	94	90-110		IC LCS_01981
			Nitrite as N	5.04	5.00	101	90-110		IC LCS_01981
30	CCB	20:32	Nitrate as N	0.20				U	
			Nitrite as N	0.10				U	
41	CCV	23:17	Nitrate as N	4.72	5.00	94	90-110		IC LCS_01981
			Nitrite as N	5.05	5.00	101	90-110		IC LCS_01981
42	CCB	23:32	Nitrate as N	0.20				U	
			Nitrite as N	0.10				U	
53	CCV	02:17	Nitrate as N	4.77	5.00	95	90-110		IC LCS_01981
			Nitrite as N	5.09	5.00	102	90-110		IC LCS_01981
54	CCB	02:32	Nitrate as N	0.20				U	
			Nitrite as N	0.10				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Analyst: MEC Batch Start Date: 08/16/2023

Reporting Units: mg/L Analytical Batch No.: 623068

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
8	ICV	10:08	Sulfate	81.1	80.0	101	90-110		IC SO4 ICV_00024
9	ICB	10:23	Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Analyst: MEC Batch Start Date: 10/05/2023

Reporting Units: mg/L Analytical Batch No.: 628613

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	12:40	Sulfate	100	100	100	90-110		IC LCS_01981
2	CCB	12:55	Sulfate	2.5				U	
17	CCV	17:16	Sulfate	99.3	100	99	90-110		IC LCS_01981
18	CCB	17:31	Sulfate	2.5				U	
29	CCV	20:17	Sulfate	99.4	100	99	90-110		IC LCS_01981
30	CCB	20:32	Sulfate	2.5				U	
41	CCV	23:17	Sulfate	99.5	100	100	90-110		IC LCS_01981
42	CCB	23:32	Sulfate	2.5				U	
53	CCV	02:17	Sulfate	101	100	101	90-110		IC LCS_01981
54	CCB	02:32	Sulfate	2.5				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Analyst: ABW Batch Start Date: 10/13/2023

Reporting Units: mg/L Analytical Batch No.: 629865

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	21:36	Total Organic Carbon - Average	21.1	20.0	106	90-110		TOC ICV Std_00052
2	ICB	21:56	Total Organic Carbon - Average	0.80				U	
15	CCV	02:06	Total Organic Carbon - Average	25.8	25.0	103	90-110		TOC LCS Std_00059
16	CCB	02:27	Total Organic Carbon - Average	0.80				U	
27	CCV	06:11	Total Organic Carbon - Average	25.6	25.0	102	90-110		TOC LCS Std_00059
28	CCB	06:31	Total Organic Carbon - Average	0.80				U	
39	CCV	09:57	Total Organic Carbon - Average	25.6	25.0	102	90-110		TOC LCS Std_00059
40	CCB	10:19	Total Organic Carbon - Average	0.80				U	
51	CCV	13:44	Total Organic Carbon - Average	25.3	25.0	101	90-110		TOC LCS Std_00059
52	CCB	14:05	Total Organic Carbon - Average	0.80				U	
75	CCV	21:45	Total Organic Carbon - Average	25.5	25.0	102	90-110		TOC LCS Std_00059
76	CCB	22:07	Total Organic Carbon - Average	0.80				U	
87	CCV	01:57	Total Organic Carbon - Average	25.7	25.0	103	90-110		TOC LCS Std_00059
88	CCB	02:18	Total Organic Carbon - Average	0.80				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Analyst: LL Batch Start Date: 10/10/2023

Reporting Units: mg/L Analytical Batch No.: 629347

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	CCV	02:01	Alkalinity	200	200	100	90-110		Alk daily lcs 01110
17	CCB	02:07	Alkalinity	3.73				J	
28	CCV	03:33	Alkalinity	201	200	100	90-110		Alk daily lcs 01110
29	CCB	03:39	Alkalinity	3.68				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 628612 Date: 10/05/2023 13:55							
9056	MB 280-628612/6	Nitrate as N	0.20	U	mg/L	0.50	1
9056	MB 280-628612/6	Nitrite as N	0.10	U	mg/L	0.50	1
Batch ID: 628612 Date: 10/05/2023 22:47							
9056	MB 280-628612/39	Nitrate as N	0.20	U	mg/L	0.50	1
9056	MB 280-628612/39	Nitrite as N	0.10	U	mg/L	0.50	1
Batch ID: 628613 Date: 10/05/2023 13:55							
9056A	MB 280-628613/6	Sulfate	2.5	U	mg/L	5.0	1
Batch ID: 628613 Date: 10/05/2023 22:47							
9056A	MB 280-628613/39	Sulfate	2.5	U	mg/L	5.0	1
Batch ID: 629865 Date: 10/13/2023 22:34							
9060	MB 280-629865/4	Total Organic Carbon - Average	0.80	U	mg/L	1.0	1
Batch ID: 629865 Date: 10/14/2023 08:45							
9060	MB 280-629865/35	Total Organic Carbon - Average	0.80	U	mg/L	1.0	1
Batch ID: 629388 Date: 10/11/2023 14:56 Prep Batch: 629386 Date: 10/11/2023 14:53							
EPA 9034	MB 280-629386/2-A	Sulfide	2.0	U	mg/L	4.0	1
Batch ID: 629347 Date: 10/10/2023 00:16							
SM 2320B	MB 280-629347/5	Alkalinity	3.61	J	mg/L	10	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 628612 Date: 10/05/2023 15:16											
9056	280-182443-2	Nitrate as N	0.091	J	mg/L						
9056	280-182443-2 MS	Nitrate as N	5.18		mg/L	5.00	102	88-111			
9056	280-182443-2	Nitrite as N	0.10	U	mg/L						
9056	280-182443-2 MS	Nitrite as N	4.33		mg/L	5.00	87	87-111			
Batch ID: 628613 Date: 10/05/2023 15:16											
9056A	280-182443-2	Sulfate	22		mg/L						J1
9056A	280-182443-2 MS	Sulfate	80.5		mg/L	50.0	117	87-112			J1
Batch ID: 629388 Date: 10/11/2023 14:56			Prep Batch: 629386		Date: 10/11/2023 14:53						
EPA 9034	280-182443-2	Sulfide	2.0	U	mg/L						
EPA 9034	280-182443-2 MS	Sulfide	17.6		mg/L	20.6	85	44-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 628612 Date: 10/05/2023 15:31											
9056	280-182443-2 MSD	Nitrate as N	5.28		mg/L	5.00	104	88-111	2	10	
9056	280-182443-2 MSD	Nitrite as N	4.43		mg/L	5.00	89	87-111	2	10	
Batch ID: 628613 Date: 10/05/2023 15:31											
9056A	280-182443-2 MSD	Sulfate	81.9		mg/L	50.0	120	87-112	2	10	J1
Batch ID: 629388 Date: 10/11/2023 14:56			Prep Batch: 629386			Date: 10/11/2023 14:53					
EPA 9034	280-182443-2 MSD	Sulfide	16.8		mg/L	20.6	81	44-110	5	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 628612 Date: 10/05/2023 15:01								
9056	WBGmw-009-230901-GW	280-182443-2	Nitrate as N	0.091	mg/L			J
9056	WBGmw-009-230901-GW	280-182443-2 DU	Nitrate as N	0.20	mg/L	NC	10	U
9056	WBGmw-009-230901-GW	280-182443-2	Nitrite as N	0.10	mg/L			U
9056	WBGmw-009-230901-GW	280-182443-2 DU	Nitrite as N	0.10	mg/L	NC	10	U
Batch ID: 628613 Date: 10/05/2023 15:01								
9056A	WBGmw-009-230901-GW	280-182443-2	Sulfate	22	mg/L			
9056A	WBGmw-009-230901-GW	280-182443-2 DU	Sulfate	21.8	mg/L	2	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 628612	Date: 10/05/2023 13:25										
						LCS Source: IC LCS_01981					
9056	LCS 280-628612/4	Nitrate as N	4.74		mg/L	5.00	95	88-111	0	10	
9056	LCS 280-628612/4	Nitrite as N	4.93		mg/L	5.00	99	87-111	0	10	
Batch ID: 628612	Date: 10/05/2023 22:17										
						LCS Source: IC LCS_01981					
9056	LCS 280-628612/37	Nitrate as N	4.72		mg/L	5.00	94	88-111	0	10	
9056	LCS 280-628612/37	Nitrite as N	5.04		mg/L	5.00	101	87-111	1	10	
Batch ID: 628613	Date: 10/05/2023 13:25										
						LCS Source: IC LCS_01981					
9056A	LCS 280-628613/4	Sulfate	100		mg/L	100	100	87-112	0	10	
Batch ID: 628613	Date: 10/05/2023 22:17										
						LCS Source: IC LCS_01981					
9056A	LCS 280-628613/37	Sulfate	99.7		mg/L	100	100	87-112	0	10	
Batch ID: 629865	Date: 10/13/2023 22:13										
						LCS Source: TOC LCS Std_00059					
9060	LCS 280-629865/3	Total Organic Carbon - Average	25.7		mg/L	25.0	103	88-112			
Batch ID: 629865	Date: 10/14/2023 08:24										
						LCS Source: TOC ICV Std_00052					
9060	LCS 280-629865/34	Total Organic Carbon - Average	25.7		mg/L	25.0	103	88-112			
Batch ID: 629388	Date: 10/11/2023 14:56	Prep Batch: 629386	Date: 10/11/2023 14:53								
						LCS Source: SFD CAL INT_02487					
EPA 9034	LCS 280-629386/1-A	Sulfide	17.6		mg/L	20.6	85	44-110			
Batch ID: 629347	Date: 10/10/2023 00:10										
						LCS Source: Alk daily lcs_01110					
SM 2320B	LCS 280-629347/4	Alkalinity	209		mg/L	200	104	89-110			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 628612	Date: 10/05/2023 13:40										
						LCSD Source: IC LCS_01981					
9056	LCSD 280-628612/5	Nitrate as N	4.75		mg/L	5.00	95	88-111	0	10	
9056	LCSD 280-628612/5	Nitrite as N	4.94		mg/L	5.00	99	87-111	0	10	
Batch ID: 628612	Date: 10/05/2023 22:32										
						LCSD Source: IC LCS_01981					
9056	LCSD 280-628612/38	Nitrate as N	4.72		mg/L	5.00	94	88-111	0	10	
9056	LCSD 280-628612/38	Nitrite as N	5.08		mg/L	5.00	102	87-111	1	10	
Batch ID: 628613	Date: 10/05/2023 13:40										
						LCSD Source: IC LCS_01981					
9056A	LCSD 280-628613/5	Sulfate	100		mg/L	100	100	87-112	0	10	
Batch ID: 628613	Date: 10/05/2023 22:32										
						LCSD Source: IC LCS_01981					
9056A	LCSD 280-628613/38	Sulfate	99.8		mg/L	100	100	87-112	0	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 628612	Date: 10/05/2023 13:10										
						LCS Source: IC Cal low_00732					
9056	MRL 280-628612/3	Nitrate as N	0.495	J	mg/L	0.500	99	50-150			
9056	MRL 280-628612/3	Nitrite as N	0.497	J	mg/L	0.500	99	50-150			
Batch ID: 628613	Date: 10/05/2023 13:10										
						LCS Source: IC CAL cl/so4_00502					
9056A	MRL 280-628613/3	Sulfate	6.49		mg/L	5.00	130	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

16A-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Eurofins Denver Job No: 280-182443-1

SDG No.: Analysis Batch No.: 623067

Instrument ID: WC_IonChrom10 Calibration ID: 83633

Start Date: 08/16/2023 08:23 End Date: 08/16/2023 09:39

Analytical Method: 9056

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Nitrate as N	1.0000	49200000	-1790000	WLR	Inverse Conc
Nitrite as N	1.0000	52900000	-660000	WLR	Inverse Conc

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-182443-1

SDG No.: Analysis Batch No.: 623067

Instrument ID: WC_IonChrom10 Calibration ID: 83633

Start Date: 08/16/2023 08:23 End Date: 08/16/2023 09:39

Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	0.20	0.22	8	0.50	0.49	-3	1.0	0.95	-5
Nitrite as N	0.20	0.19	-4	0.50	0.50	-1	1.0	1.0	3

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-182443-1

SDG No.: Analysis Batch No.: 623067

Instrument ID: WC_IonChrom10 Calibration ID: 83633

Start Date: 08/16/2023 08:23 End Date: 08/16/2023 09:39

Analytical Method: 9056 Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Nitrate as N	4.0	3.9	-1	8.0	8.0	0	10.0	10.1	1
Nitrite as N	4.0	4.1	4	8.0	8.0	0	10.0	9.8	-2

16A-IN
INITIAL CALIBRATION SUMMARY

Lab Name: Eurofins Denver Job No: 280-182443-1

SDG No.: Analysis Batch No.: 623068

Instrument ID: WC_IonChrom10 Calibration ID: 83634

Start Date: 08/16/2023 08:23 End Date: 08/16/2023 09:39

Analytical Method: 9056A

Analyte	Corr. Coeff.	Slope	Intercept	Calib. Type	Weighting
Sulfate	1.0000	14500000	-1220000	WLR	Inverse Conc

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-182443-1

SDG No.: Analysis Batch No.: 623068

Instrument ID: WC_IonChrom10 Calibration ID: 83634

Start Date: 08/16/2023 08:23 End Date: 08/16/2023 09:39

Analytical Method: 9056A Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Sulfate	1.0	1.2	19	2.5	2.3	-7	5.0	4.4	-13

16B-IN
INITIAL CALIBRATION

Lab Name: Eurofins Denver Job No: 280-182443-1

SDG No.: Analysis Batch No.: 623068

Instrument ID: WC_IonChrom10 Calibration ID: 83634

Start Date: 08/16/2023 08:23 End Date: 08/16/2023 09:39

Analytical Method: 9056A Concentration Units: ug/mL

Analyte	True	Found	%D	True	Found	%D	True	Found	%D
Sulfate	60.0	59.2	-1	120	121	1	200	200	0

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom10

Method: 9056 DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Nitrate as N		0.5	0.0901
Nitrite as N		0.5	0.049

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom10

Method: 9056 XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.5	0.0901
Nitrite as N		0.5	0.049

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom10

Method: 9056A DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfate		5	1.03

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG Number:

Matrix: Water Instrument ID: WC_IonChrom10

Method: 9056A XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfate		5	1.03

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI7

Method: 9060 DL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Organic Carbon - Average		1	0.345

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI7

Method: 9060 XMDL Date: 06/21/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon - Average		1	0.345

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: EPA 9034 DL Date: 04/15/2022 13:08

Prep Method: 9030B

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Sulfide		4	1.6

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: EPA 9034 XMDL Date: 04/15/2022 13:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Sulfide		4	1.6

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG Number:

Matrix: Water Instrument ID: WC_AT4

Method: SM 2320B DL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		10	3.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job Number: 280-182443-1

SDG Number:

Matrix: Water Instrument ID: WC_AT4

Method: SM 2320B XMDL Date: 02/03/2019 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		10	3.08

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Prep Method: 9030B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
LCS 280-629386/1-A	10/11/2023 14:53	629386		50	50
MB 280-629386/2-A	10/11/2023 14:53	629386		50	50
280-182443-2	10/11/2023 14:53	629386		50	50
280-182443-2 MS	10/11/2023 14:53	629386		50	50
280-182443-2 MSD	10/11/2023 14:53	629386		50	50
280-182443-4	10/11/2023 14:53	629386		50	50
280-182443-7	10/11/2023 14:53	629386		50	50
280-182443-8	10/11/2023 14:53	629386		50	50

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 | Analysis Method: 9056

Start Date: 08/16/2023 08:23 | End Date: 08/17/2023 02:38

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
STD1 280-623067/1 IC	1		08:23	X	X																								
STD2 280-623067/2 IC	1		08:38	X	X																								
STD3 280-623067/3 IC	1		08:54	X	X																								
STD4 280-623067/4 IC	1		09:09	X	X																								
STD5 280-623067/5 IC	1		09:24	X	X																								
STD6 280-623067/6 IC	1		09:39	X	X																								
RTC 280-623067/7			09:54																										
ICV 280-623067/8	1		10:08	X	X																								
ICB 280-623067/9	1		10:23	X	X																								
ZZZZZZ			11:49																										
ZZZZZZ			12:04																										
ZZZZZZ			12:19																										
ZZZZZZ			12:34																										
ZZZZZZ			12:49																										
ZZZZZZ			13:04																										
ZZZZZZ			13:19																										
ZZZZZZ			13:34																										
ZZZZZZ			13:49																										
ZZZZZZ			14:04																										
ZZZZZZ			14:19																										
ZZZZZZ			16:52																										
ZZZZZZ			17:07																										
ZZZZZZ			17:22																										
CCV 280-623067/24			17:37																										
CCB 280-623067/25			17:52																										
ZZZZZZ			18:07																										
ZZZZZZ			18:22																										
ZZZZZZ			18:37																										
ZZZZZZ			18:52																										
ZZZZZZ			19:07																										
ZZZZZZ			19:22																										
ZZZZZZ			19:38																										
ZZZZZZ			19:53																										
ZZZZZZ			20:08																										
ZZZZZZ			20:23																										
CCV 280-623067/36			20:38																										
CCB 280-623067/37			20:53																										
ZZZZZZ			21:08																										
ZZZZZZ			21:23																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056

Start Date: 08/16/2023 08:23 End Date: 08/17/2023 02:38

Lab Sample Id	D/F	Type	Time	Analytes																									
				NO2-N	NO3																								
ZZZZZZ			21:38																										
ZZZZZZ			21:53																										
ZZZZZZ			22:08																										
ZZZZZZ			22:23																										
ZZZZZZ			22:38																										
ZZZZZZ			22:53																										
ZZZZZZ			23:08																										
ZZZZZZ			23:23																										
CCV 280-623067/48			23:38																										
CCB 280-623067/49			23:53																										
ZZZZZZ			00:08																										
ZZZZZZ			00:23																										
ZZZZZZ			00:38																										
ZZZZZZ			00:53																										
ZZZZZZ			01:08																										
ZZZZZZ			01:23																										
ZZZZZZ			01:38																										
ZZZZZZ			01:53																										
ZZZZZZ			02:08																										
CCV 280-623067/59			02:23																										
CCB 280-623067/60			02:38																										

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 | Analysis Method: 9056

Start Date: 10/05/2023 12:40 | End Date: 10/06/2023 05:32

Lab Sample Id	D/F	Type	Time	Analytes																										
				NO2-N	NO3																										
CCV 280-628612/1	1		12:40	X	X																										
CCB 280-628612/2	1		12:55	X	X																										
MRL 280-628612/3	1	T	13:10	X	X																										
LCS 280-628612/4	1	T	13:25	X	X																										
LCSD 280-628612/5	1	T	13:40	X	X																										
MB 280-628612/6	1	T	13:55	X	X																										
280-182443-2	1	T	14:46	X	X																										
280-182443-2 DU	1	T	15:01	X	X																										
280-182443-2 MS	1	T	15:16	X	X																										
280-182443-2 MSD	1	T	15:31	X	X																										
ZZZZZZ			15:46																												
ZZZZZZ			16:01																												
280-182443-4	1	T	16:16	X	X																										
ZZZZZZ			16:31																												
ZZZZZZ			16:46																												
ZZZZZZ			17:01																												
CCV 280-628612/17	1		17:16	X	X																										
CCB 280-628612/18	1		17:31	X	X																										
ZZZZZZ			17:46																												
ZZZZZZ			18:01																												
ZZZZZZ			18:16																												
ZZZZZZ			18:31																												
ZZZZZZ			18:47																												
ZZZZZZ			19:02																												
ZZZZZZ			19:17																												
ZZZZZZ			19:32																												
ZZZZZZ			19:47																												
ZZZZZZ			20:02																												
CCV 280-628612/29	1		20:17	X	X																										
CCB 280-628612/30	1		20:32	X	X																										
ZZZZZZ			20:47																												
ZZZZZZ			21:02																												
ZZZZZZ			21:17																												
ZZZZZZ			21:32																												
ZZZZZZ			21:47																												
ZZZZZZ			22:02																												
LCS 280-628612/37	1	T	22:17	X	X																										
LCSD 280-628612/38	1	T	22:32	X	X																										
MB 280-628612/39	1	T	22:47	X	X																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056

Start Date: 10/05/2023 12:40 End Date: 10/06/2023 05:32

Lab Sample Id	D/F	Type	Time	Analytes																										
				NO2-N	NO3																									
ZZZZZZ			23:02																											
CCV 280-628612/41	1		23:17	X	X																									
CCB 280-628612/42	1		23:32	X	X																									
ZZZZZZ			23:47																											
ZZZZZZ			00:02																											
ZZZZZZ			00:17																											
ZZZZZZ			00:32																											
280-182443-7	1	T	00:47	X	X																									
ZZZZZZ			01:02																											
ZZZZZZ			01:17																											
ZZZZZZ			01:32																											
280-182443-8	1	T	01:47	X	X																									
ZZZZZZ			02:02																											
CCV 280-628612/53	1		02:17	X	X																									
CCB 280-628612/54	1		02:32	X	X																									
ZZZZZZ			02:47																											
ZZZZZZ			03:02																											
ZZZZZZ			03:17																											
ZZZZZZ			03:32																											
ZZZZZZ			03:47																											
ZZZZZZ			04:02																											
ZZZZZZ			04:17																											
ZZZZZZ			04:32																											
ZZZZZZ			04:47																											
ZZZZZZ			05:02																											
CCV 280-628612/65			05:17																											
CCB 280-628612/66			05:32																											

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 | Analysis Method: 9056A

Start Date: 08/16/2023 08:23 | End Date: 08/17/2023 02:38

Lab Sample Id	D/F	Type	Time	Analytes																							
				SO4																							
STD1 280-623068/1 IC	1		08:23	X																							
STD2 280-623068/2 IC	1		08:38	X																							
STD3 280-623068/3 IC	1		08:54	X																							
STD4 280-623068/4 IC	1		09:09	X																							
STD5 280-623068/5 IC	1		09:24	X																							
STD6 280-623068/6 IC	1		09:39	X																							
RTC 280-623068/7			09:54																								
ICV 280-623068/8	1		10:08	X																							
ICB 280-623068/9	1		10:23	X																							
ZZZZZZ			11:49																								
ZZZZZZ			12:04																								
ZZZZZZ			12:19																								
ZZZZZZ			12:34																								
ZZZZZZ			12:49																								
ZZZZZZ			13:04																								
ZZZZZZ			13:19																								
ZZZZZZ			14:04																								
ZZZZZZ			14:19																								
ZZZZZZ			16:52																								
ZZZZZZ			17:07																								
ZZZZZZ			17:22																								
CCV 280-623068/24			17:37																								
CCB 280-623068/25			17:52																								
ZZZZZZ			18:07																								
ZZZZZZ			18:22																								
ZZZZZZ			18:37																								
ZZZZZZ			18:52																								
ZZZZZZ			19:07																								
ZZZZZZ			19:22																								
ZZZZZZ			19:38																								
ZZZZZZ			19:53																								
ZZZZZZ			20:08																								
ZZZZZZ			20:23																								
CCV 280-623068/36			20:38																								
CCB 280-623068/37			20:53																								
ZZZZZZ			21:08																								
ZZZZZZ			21:23																								
ZZZZZZ			21:38																								
ZZZZZZ			21:53																								
ZZZZZZ			22:08																								
ZZZZZZ			22:23																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056A

Start Date: 08/16/2023 08:23 End Date: 08/17/2023 02:38

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
ZZZZZZ			22:38																									
ZZZZZZ			22:53																									
ZZZZZZ			23:08																									
ZZZZZZ			23:23																									
CCV 280-623068/48			23:38																									
CCB 280-623068/49			23:53																									
ZZZZZZ			00:08																									
ZZZZZZ			00:23																									
ZZZZZZ			00:38																									
ZZZZZZ			00:53																									
ZZZZZZ			01:08																									
ZZZZZZ			01:23																									
ZZZZZZ			01:38																									
ZZZZZZ			01:53																									
ZZZZZZ			02:08																									
CCV 280-623068/59			02:23																									
CCB 280-623068/60			02:38																									

Prep Types:
=

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 Analysis Method: 9056A

Start Date: 10/05/2023 12:40 End Date: 10/06/2023 05:32

Lab Sample Id	D/F	Type	Time	Analytes
				SO4
CCV 280-628613/1	1		12:40	X
CCB 280-628613/2	1		12:55	X
MRL 280-628613/3	1	T	13:10	X
LCS 280-628613/4	1	T	13:25	X
LCSD 280-628613/5	1	T	13:40	X
MB 280-628613/6	1	T	13:55	X
280-182443-2	1	T	14:46	X
280-182443-2 DU	1	T	15:01	X
280-182443-2 MS	1	T	15:16	X
280-182443-2 MSD	1	T	15:31	X
ZZZZZZ			15:46	
ZZZZZZ			16:01	
280-182443-4	1	T	16:16	X
ZZZZZZ			16:31	
ZZZZZZ			16:46	
ZZZZZZ			17:01	
CCV 280-628613/17	1		17:16	X
CCB 280-628613/18	1		17:31	X
ZZZZZZ			17:46	
ZZZZZZ			18:01	
ZZZZZZ			18:16	
ZZZZZZ			18:31	
ZZZZZZ			18:47	
ZZZZZZ			19:02	
ZZZZZZ			19:17	
ZZZZZZ			19:32	
ZZZZZZ			19:47	
ZZZZZZ			20:02	
CCV 280-628613/29	1		20:17	X
CCB 280-628613/30	1		20:32	X
ZZZZZZ			20:47	
ZZZZZZ			21:02	
ZZZZZZ			21:17	
ZZZZZZ			21:32	
ZZZZZZ			21:47	
ZZZZZZ			22:02	
LCS 280-628613/37	1	T	22:17	X
LCSD 280-628613/38	1	T	22:32	X
MB 280-628613/39	1	T	22:47	X
ZZZZZZ			23:02	
CCV 280-628613/41	1		23:17	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver | Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_IonChrom10 | Analysis Method: 9056A

Start Date: 10/05/2023 12:40 | End Date: 10/06/2023 05:32

Lab Sample Id	D/F	Type	Time	Analytes																								
				SO4																								
CCB 280-628613/42	1		23:32	X																								
ZZZZZZ			23:47																									
ZZZZZZ			00:02																									
ZZZZZZ			00:17																									
ZZZZZZ			00:32																									
280-182443-7	1	T	00:47	X																								
ZZZZZZ			01:02																									
ZZZZZZ			01:17																									
280-182443-8	1	T	01:47	X																								
ZZZZZZ			02:02																									
CCV 280-628613/53	1		02:17	X																								
CCB 280-628613/54	1		02:32	X																								
ZZZZZZ			02:47																									
ZZZZZZ			03:17																									
ZZZZZZ			03:32																									
ZZZZZZ			03:47																									
ZZZZZZ			04:02																									
ZZZZZZ			04:17																									
ZZZZZZ			04:32																									
ZZZZZZ			04:47																									
ZZZZZZ			05:02																									
CCV 280-628613/65			05:17																									
CCB 280-628613/66			05:32																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_SHI7 Analysis Method: 9060

Start Date: 10/13/2023 21:36 End Date: 10/15/2023 03:55

Lab Sample Id	D/F	Type	Time	Analytes
				TOCQ
ICV 280-629865/1	1		21:36	X
ICB 280-629865/2	1		21:56	X
LCS 280-629865/3	1	T	22:13	X
MB 280-629865/4	1	T	22:34	X
ZZZZZZ			22:48	
ZZZZZZ			23:04	
ZZZZZZ			23:25	
ZZZZZZ			23:47	
ZZZZZZ			00:09	
ZZZZZZ			00:27	
ZZZZZZ			00:47	
ZZZZZZ			01:06	
ZZZZZZ			01:28	
ZZZZZZ			01:47	
CCV 280-629865/15	1		02:06	X
CCB 280-629865/16	1		02:27	X
ZZZZZZ			02:42	
ZZZZZZ			03:02	
ZZZZZZ			03:21	
ZZZZZZ			03:41	
ZZZZZZ			04:03	
ZZZZZZ			04:25	
ZZZZZZ			04:48	
ZZZZZZ			05:08	
ZZZZZZ			05:29	
ZZZZZZ			05:50	
CCV 280-629865/27	1		06:11	X
CCB 280-629865/28	1		06:31	X
ZZZZZZ			06:47	
ZZZZZZ			07:07	
280-182443-2	1	T	07:27	X
280-182443-4	1	T	07:45	X
280-182443-7	1	T	08:04	X
LCS 280-629865/34	1	T	08:24	X
MB 280-629865/35	1	T	08:45	X
ZZZZZZ			08:59	
ZZZZZZ			09:15	
ZZZZZZ			09:35	
CCV 280-629865/39	1		09:57	X
CCB 280-629865/40	1		10:19	X

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_SHI7 Analysis Method: 9060

Start Date: 10/13/2023 21:36 End Date: 10/15/2023 03:55

Lab Sample Id	D/F	Type	Time	Analytes																								
				TOCQ																								
ZZZZZZ			10:36																									
ZZZZZZ			10:58																									
ZZZZZZ			11:17																									
ZZZZZZ			11:36																									
ZZZZZZ			11:55																									
ZZZZZZ			12:12																									
ZZZZZZ			12:30																									
ZZZZZZ			12:47																									
ZZZZZZ			13:04																									
ZZZZZZ			13:22																									
CCV 280-629865/51	1		13:44	X																								
CCB 280-629865/52	1		14:05	X																								
ZZZZZZ			14:21																									
ZZZZZZ			14:42																									
ZZZZZZ			15:04																									
ZZZZZZ			15:25																									
ZZZZZZ			15:42																									
ZZZZZZ			16:01																									
ZZZZZZ			16:20																									
ZZZZZZ			16:39																									
ZZZZZZ			16:59																									
ZZZZZZ			17:20																									
CCV 280-629865/63			17:38																									
CCB 280-629865/64			17:58																									
ZZZZZZ			18:13																									
ZZZZZZ			18:32																									
ZZZZZZ			18:56																									
ZZZZZZ			19:17																									
ZZZZZZ			19:34																									
ZZZZZZ			19:55																									
ZZZZZZ			20:18																									
ZZZZZZ			20:40																									
ZZZZZZ			21:00																									
ZZZZZZ			21:23																									
CCV 280-629865/75	1		21:45	X																								
CCB 280-629865/76	1		22:07	X																								
ZZZZZZ			22:24																									
ZZZZZZ			22:45																									
ZZZZZZ			23:07																									
280-182443-8	1	T	23:27	X																								

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_SHI7 Analysis Method: 9060

Start Date: 10/13/2023 21:36 End Date: 10/15/2023 03:55

Lab Sample Id	D/F	Type	Time	Analytes																								
				TOCQ																								
ZZZZZZ			23:46																									
ZZZZZZ			00:06																									
ZZZZZZ			00:25																									
ZZZZZZ			00:48																									
ZZZZZZ			01:10																									
ZZZZZZ			01:33																									
CCV 280-629865/87	1		01:57	X																								
CCB 280-629865/88	1		02:18	X																								
ZZZZZZ			02:36																									
ZZZZZZ			02:59																									
ZZZZZZ			03:16																									
CCV 280-629865/92			03:34																									
CCB 280-629865/93			03:55																									

Prep Types:
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: EPA 9034

Start Date: 10/11/2023 14:56 End Date: 10/11/2023 14:56

Lab Sample Id	D/F	Type	Time	Analytes																								
				S2																								
LCS 280-629386/1-A	1	T	14:56	X																								
MB 280-629386/2-A	1	T	14:56	X																								
280-182443-2	1	T	14:56	X																								
280-182443-2 MS	1	T	14:56	X																								
280-182443-2 MSD	1	T	14:56	X																								
280-182443-4	1	T	14:56	X																								
280-182443-7	1	T	14:56	X																								
280-182443-8	1	T	14:56	X																								
ZZZZZZ			14:56																									
ZZZZZZ			14:56																									

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 10/09/2023 23:54 End Date: 10/10/2023 22:57

Lab Sample Id	D/F	Type	Time	Analytes
				Alk
RINSE 280-629347/1			23:54	
ZZZZZZ			00:00	
ZZZZZZ			00:03	
LCS 280-629347/4	1	T	00:10	X
MB 280-629347/5	1	T	00:16	X
ZZZZZZ			00:23	
ZZZZZZ			00:30	
ZZZZZZ			00:48	
ZZZZZZ			00:56	
ZZZZZZ			01:10	
ZZZZZZ			01:21	
ZZZZZZ			01:33	
ZZZZZZ			01:39	
280-182443-2	1	T	01:47	X
280-182443-4	1	T	01:54	X
CCV 280-629347/16	1		02:01	X
CCB 280-629347/17	1		02:07	X
280-182443-7	1	T	02:12	X
280-182443-8	1	T	02:17	X
ZZZZZZ			02:24	
ZZZZZZ			02:30	
ZZZZZZ			02:36	
ZZZZZZ			02:43	
ZZZZZZ			02:53	
ZZZZZZ			03:04	
ZZZZZZ			03:20	
ZZZZZZ			03:26	
CCV 280-629347/28	1		03:33	X
CCB 280-629347/29	1		03:39	X
ZZZZZZ			03:45	
ZZZZZZ			03:51	
ZZZZZZ			03:56	
ZZZZZZ			04:01	
ZZZZZZ			04:07	
ZZZZZZ			04:13	
ZZZZZZ			04:18	
ZZZZZZ			04:24	
ZZZZZZ			04:30	
ZZZZZZ			04:37	
ZZZZZZ			04:43	
ZZZZZZ			04:50	

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 10/09/2023 23:54 End Date: 10/10/2023 22:57

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
CCV 280-629347/42			04:57																									
CCB 280-629347/43			05:02																									
ZZZZZZ			05:09																									
ZZZZZZ			05:16																									
ZZZZZZ			05:22																									
ZZZZZZ			05:29																									
ZZZZZZ			05:37																									
ZZZZZZ			05:44																									
ZZZZZZ			05:51																									
ZZZZZZ			05:58																									
ZZZZZZ			06:06																									
ZZZZZZ			06:13																									
CCV 280-629347/54			06:19																									
CCB 280-629347/55			06:25																									
ZZZZZZ			06:32																									
ZZZZZZ			06:38																									
ZZZZZZ			06:45																									
ZZZZZZ			06:53																									
ZZZZZZ			07:00																									
ZZZZZZ			07:06																									
ZZZZZZ			07:14																									
ZZZZZZ			07:21																									
ZZZZZZ			07:30																									
ZZZZZZ			07:35																									
ZZZZZZ			07:42																									
ZZZZZZ			07:50																									
CCV 280-629347/68			07:57																									
CCB 280-629347/69			08:03																									
ZZZZZZ			08:10																									
ZZZZZZ			08:19																									
ZZZZZZ			08:27																									
ZZZZZZ			08:36																									
ZZZZZZ			08:43																									
ZZZZZZ			08:51																									
ZZZZZZ			08:59																									
ZZZZZZ			09:07																									
ZZZZZZ			09:20																									
ZZZZZZ			09:43																									
CCV 280-629347/80			09:51																									
CCB 280-629347/81			09:57																									
ZZZZZZ			10:03																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 10/09/2023 23:54 End Date: 10/10/2023 22:57

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			10:09																									
ZZZZZZ			10:19																									
ZZZZZZ			10:29																									
ZZZZZZ			10:47																									
ZZZZZZ			11:01																									
ZZZZZZ			11:21																									
ZZZZZZ			11:33																									
ZZZZZZ			11:42																									
ZZZZZZ			11:55																									
ZZZZZZ			12:03																									
ZZZZZZ			12:11																									
CCV 280-629347/94			12:17																									
CCB 280-629347/95			12:23																									
ZZZZZZ			12:29																									
ZZZZZZ			12:38																									
ZZZZZZ			12:48																									
ZZZZZZ			12:56																									
ZZZZZZ			13:06																									
ZZZZZZ			13:12																									
ZZZZZZ			13:18																									
ZZZZZZ			13:24																									
ZZZZZZ			13:30																									
ZZZZZZ			13:35																									
CCV 280-629347/106			13:42																									
CCB 280-629347/107			13:48																									
ZZZZZZ			13:55																									
ZZZZZZ			14:00																									
ZZZZZZ			14:06																									
ZZZZZZ			14:11																									
ZZZZZZ			14:17																									
ZZZZZZ			14:22																									
ZZZZZZ			14:27																									
ZZZZZZ			14:32																									
ZZZZZZ			14:38																									
ZZZZZZ			14:43																									
ZZZZZZ			14:50																									
ZZZZZZ			14:56																									
CCV 280-629347/120			15:02																									
CCB 280-629347/121			15:08																									
ZZZZZZ			15:13																									
ZZZZZZ			15:31																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 10/09/2023 23:54 End Date: 10/10/2023 22:57

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			15:55																									
ZZZZZZ			16:09																									
ZZZZZZ			16:20																									
ZZZZZZ			16:33																									
ZZZZZZ			16:47																									
ZZZZZZ			17:10																									
ZZZZZZ			17:17																									
ZZZZZZ			17:23																									
CCV 280-629347/132			17:29																									
CCB 280-629347/133			17:35																									
ZZZZZZ			17:41																									
ZZZZZZ			17:47																									
ZZZZZZ			17:52																									
ZZZZZZ			17:58																									
ZZZZZZ			18:04																									
ZZZZZZ			18:09																									
ZZZZZZ			18:14																									
ZZZZZZ			18:20																									
ZZZZZZ			18:25																									
ZZZZZZ			18:30																									
ZZZZZZ			18:36																									
ZZZZZZ			18:41																									
CCV 280-629347/146			18:48																									
CCB 280-629347/147			18:53																									
ZZZZZZ			19:00																									
ZZZZZZ			19:07																									
ZZZZZZ			19:14																									
ZZZZZZ			19:21																									
ZZZZZZ			19:28																									
ZZZZZZ			19:36																									
ZZZZZZ			19:52																									
ZZZZZZ			20:16																									
ZZZZZZ			20:22																									
ZZZZZZ			20:27																									
CCV 280-629347/158			20:34																									
CCB 280-629347/159			20:39																									
ZZZZZZ			20:45																									
ZZZZZZ			20:51																									
ZZZZZZ			20:57																									
ZZZZZZ			21:04																									
ZZZZZZ			21:10																									

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Instrument ID: WC_AT4 Analysis Method: SM 2320B

Start Date: 10/09/2023 23:54 End Date: 10/10/2023 22:57

Lab Sample Id	D/F	Type	Time	Analytes																								
				Alk																								
ZZZZZZ			21:16																									
ZZZZZZ			21:25																									
ZZZZZZ			21:30																									
ZZZZZZ			21:39																									
ZZZZZZ			21:50																									
ZZZZZZ			21:59																									
ZZZZZZ			22:08																									
CCV 280-629347/172			22:15																									
CCB 280-629347/173			22:20																									
ZZZZZZ			22:30																									
ZZZZZZ			22:36																									
ZZZZZZ			22:44																									
CCV 280-629347/177			22:51																									
CCB 280-629347/178			22:57																									

Prep Types:
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 623067 Batch Start Date: 08/16/23 08:23 Batch Analyst: Collins, Michael E

Batch Method: 9056 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Cl ICV Std 00006	IC CAL cl/so4 00494	IC Cal low 00722	IC ICV 5 00413
STD1 280-623067/1 IC		9056		10 mL	10 mL		0.04 mL	0.04 mL	
STD2 280-623067/2 IC		9056		10 mL	10 mL		0.1 mL	0.1 mL	
STD3 280-623067/3 IC		9056		10 mL	10 mL		0.2 mL	0.2 mL	
STD4 280-623067/4 IC		9056		10 mL	10 mL		2.4 mL	0.8 mL	
STD5 280-623067/5 IC		9056		10 mL	10 mL		4.8 mL	1.6 mL	
STD6 280-623067/6 IC		9056		10 mL	10 mL		8 mL	2 mL	
ICV 280-623067/8		9056		10 mL	10 mL	0.8 mL			0.8 mL
ICB 280-623067/9		9056		10 mL	10 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00024					
STD1 280-623067/1 IC		9056							
STD2 280-623067/2 IC		9056							
STD3 280-623067/3 IC		9056							
STD4 280-623067/4 IC		9056							
STD5 280-623067/5 IC		9056							
STD6 280-623067/6 IC		9056							
ICV 280-623067/8		9056		0.8 mL					
ICB 280-623067/9		9056							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 623067 Batch Start Date: 08/16/23 08:23 Batch Analyst: Collins, Michael E

Batch Method: 9056 Batch End Date:

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	ARM5000, 1000HEX, 200CJ, 100IC, ICM5000
Sufficient Volume for Batch QC	yes
Eluent 1 ID	IC10 Eluent_00006
Batch Comment	MEC

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 628612 Batch Start Date: 10/05/23 12:40 Batch Analyst: Collins, Michael E

Batch Method: 9056 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00502	IC Cal low 00732	IC LCS 01981	ICMS/MSD WEEK 00839
CCV 280-628612/1		9056		10 mL	10 mL			10 mL	
CCB 280-628612/2		9056		10 mL	10 mL				
MRL 280-628612/3		9056		10 mL	10 mL	0.2 mL	0.1 mL		
LCS 280-628612/4		9056		10 mL	10 mL			10 mL	
LCSD 280-628612/5		9056		10 mL	10 mL			10 mL	
MB 280-628612/6		9056		10 mL	10 mL				
280-182443-E-2	WBGmw-009-230901-GW	9056	T	10 mL	10 mL				
280-182443-E-2 DU	WBGmw-009-230901-GW	9056	T	10 mL	10 mL				
280-182443-E-2 MS	WBGmw-009-230901-GW	9056	T	10 mL	10 mL				0.1 mL
280-182443-E-2 MSD	WBGmw-009-230901-GW	9056	T	10 mL	10 mL				0.1 mL
280-182443-E-4	WBGmw-006-230901-GW	9056	T	10 mL	10 mL				
CCV 280-628612/17		9056		10 mL	10 mL			10 mL	
CCB 280-628612/18		9056		10 mL	10 mL				
CCV 280-628612/29		9056		10 mL	10 mL			10 mL	
CCB 280-628612/30		9056		10 mL	10 mL				
LCS 280-628612/37		9056		10 mL	10 mL			10 mL	
LCSD 280-628612/38		9056		10 mL	10 mL			10 mL	
MB 280-628612/39		9056		10 mL	10 mL				
CCV 280-628612/41		9056		10 mL	10 mL			10 mL	
CCB 280-628612/42		9056		10 mL	10 mL				
280-182443-E-7	WBGmw-018-230901-GW	9056	T	10 mL	10 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 628612 Batch Start Date: 10/05/23 12:40 Batch Analyst: Collins, Michael E

Batch Method: 9056 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00502	IC Cal low 00732	IC LCS 01981	ICMS/MSD WEEK 00839
280-182443-E-8	WBGMW-RB-018-2023	9056	T	10 mL	10 mL				
CCV 280-628612/53		9056		10 mL	10 mL			10 mL	
CCB 280-628612/54		9056		10 mL	10 mL				

Batch Notes	
Filter ID	Sf020E
Pipette/Syringe/Dispenser ID	ARM5000, 1000HEX, 200CJ, 100IC, ICM5000
Sufficient Volume for Batch QC	yes
Eluent 1 ID	IC10 Eluent_00008
Batch Comment	MEC

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 623068 Batch Start Date: 08/16/23 08:23 Batch Analyst: Collins, Michael E

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Cl ICV Std 00006	IC CAL cl/so4 00494	IC Cal low 00722	IC ICV 5 00413
STD1 280-623068/1 IC		9056A		10 mL	10 mL		0.04 mL	0.04 mL	
STD2 280-623068/2 IC		9056A		10 mL	10 mL		0.1 mL	0.1 mL	
STD3 280-623068/3 IC		9056A		10 mL	10 mL		0.2 mL	0.2 mL	
STD4 280-623068/4 IC		9056A		10 mL	10 mL		2.4 mL	0.8 mL	
STD5 280-623068/5 IC		9056A		10 mL	10 mL		4.8 mL	1.6 mL	
STD6 280-623068/6 IC		9056A		10 mL	10 mL		8 mL	2 mL	
ICV 280-623068/8		9056A		10 mL	10 mL	0.8 mL			0.8 mL
ICB 280-623068/9		9056A		10 mL	10 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	IC SO4 ICV 00024					
STD1 280-623068/1 IC		9056A							
STD2 280-623068/2 IC		9056A							
STD3 280-623068/3 IC		9056A							
STD4 280-623068/4 IC		9056A							
STD5 280-623068/5 IC		9056A							
STD6 280-623068/6 IC		9056A							
ICV 280-623068/8		9056A		0.8 mL					
ICB 280-623068/9		9056A							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 623068 Batch Start Date: 08/16/23 08:23 Batch Analyst: Collins, Michael E

Batch Method: 9056A Batch End Date:

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	ARM5000, 1000HEX, 200CJ, 100IC, 1000ICM
Sufficient Volume for Batch QC	yes
Eluent 1 ID	IC10 Eluent_00006
Batch Comment	MEC

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 628613 Batch Start Date: 10/05/23 12:40 Batch Analyst: Collins, Michael E

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00502	IC Cal low 00732	IC LCS 01981	ICMS/MSD WEEK 00839
CCV 280-628613/1		9056A		10 mL	10 mL			10 mL	
CCB 280-628613/2		9056A		10 mL	10 mL				
MRL 280-628613/3		9056A		10 mL	10 mL	0.2 mL	0.1 mL		
LCS 280-628613/4		9056A		10 mL	10 mL			10 mL	
LCSD 280-628613/5		9056A		10 mL	10 mL			10 mL	
MB 280-628613/6		9056A		10 mL	10 mL				
280-182443-E-2	WBGmw-009-230901-GW	9056A	T	10 mL	10 mL				
280-182443-E-2 DU	WBGmw-009-230901-GW	9056A	T	10 mL	10 mL				
280-182443-E-2 MS	WBGmw-009-230901-GW	9056A	T	10 mL	10 mL				0.1 mL
280-182443-E-2 MSD	WBGmw-009-230901-GW	9056A	T	10 mL	10 mL				0.1 mL
280-182443-E-4	WBGmw-006-230901-GW	9056A	T	10 mL	10 mL				
CCV 280-628613/17		9056A		10 mL	10 mL			10 mL	
CCB 280-628613/18		9056A		10 mL	10 mL				
CCV 280-628613/29		9056A		10 mL	10 mL			10 mL	
CCB 280-628613/30		9056A		10 mL	10 mL				
LCS 280-628613/37		9056A		10 mL	10 mL			10 mL	
LCSD 280-628613/38		9056A		10 mL	10 mL			10 mL	
MB 280-628613/39		9056A		10 mL	10 mL				
CCV 280-628613/41		9056A		10 mL	10 mL			10 mL	
CCB 280-628613/42		9056A		10 mL	10 mL				
280-182443-E-7	WBGmw-018-230901-GW	9056A	T	10 mL	10 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 628613 Batch Start Date: 10/05/23 12:40 Batch Analyst: Collins, Michael E

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	IC CAL cl/so4 00502	IC Cal low 00732	IC LCS 01981	ICMS/MSD WEEK 00839
280-182443-E-8	WBGMW-RB-018-2023	9056A	T	10 mL	10 mL				
CCV 280-628613/53		9056A		10 mL	10 mL			10 mL	
CCB 280-628613/54		9056A		10 mL	10 mL				

Batch Notes	
Filter ID	SF020E
Pipette/Syringe/Dispenser ID	ARM5000, 1000HEX, 200CJ, 100IC, ICM%000
Sufficient Volume for Batch QC	yes
Eluent 1 ID	IC10 Eluent_00008
Batch Comment	MEC

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629865 Batch Start Date: 10/13/23 21:36 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	Final pH	TOC ICV Std 00052	TOC LCS Std 00059
ICV 280-629865/1		9060		50 mL	50 mL	<2 SU	<2 SU	1 mL	
ICB 280-629865/2		9060		20 mL	20 mL	<2 SU	<2 SU		
LCS 280-629865/3		9060		200 mL	200 mL	<2 SU	<2 SU		5 mL
MB 280-629865/4		9060		20 mL	20 mL	<2 SU	<2 SU		
CCV 280-629865/15		9060		200 mL	200 mL	<2 SU	<2 SU		5 mL
CCB 280-629865/16		9060		20 mL	20 mL	<2 SU	<2 SU		
CCV 280-629865/27		9060		200 mL	200 mL	<2 SU	<2 SU		5 mL
CCB 280-629865/28		9060		20 mL	20 mL	<2 SU	<2 SU		
280-182443-C-2	WBGmw-009-230901-GW	9060	T	20 mL	20 mL	<2 SU	<2 SU		
280-182443-C-4	WBGmw-006-230901-GW	9060	T	20 mL	20 mL	<2 SU	<2 SU		
280-182443-C-7	WBGmw-018-230901-GW	9060	T	20 mL	20 mL	<2 SU	<2 SU		
LCS 280-629865/34		9060		100 mL	100 mL	<2 SU	<2 SU	2.5 mL	
MB 280-629865/35		9060		20 mL	20 mL	<2 SU	<2 SU		
CCV 280-629865/39		9060		200 mL	200 mL	<2 SU	<2 SU		5 mL
CCB 280-629865/40		9060		20 mL	20 mL	<2 SU	<2 SU		
CCV 280-629865/51		9060		200 mL	200 mL	<2 SU	<2 SU		5 mL
CCB 280-629865/52		9060		20 mL	20 mL	<2 SU	<2 SU		
CCV 280-629865/75		9060		200 mL	200 mL	<2 SU	<2 SU		5 mL
CCB 280-629865/76		9060		20 mL	20 mL	<2 SU	<2 SU		
280-182443-C-8	WBGMW-RB-018-2023	9060	T	20 mL	20 mL	<2 SU	<2 SU		
CCV 280-629865/87		9060		200 mL	200 mL	<2 SU	<2 SU		5 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629865 Batch Start Date: 10/13/23 21:36 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	Final pH	TOC ICV Std 00052	TOC LCS Std 00059
CCB 280-629865/88		9060		20 mL	20 mL	<2 SU	<2 SU		

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
ICV 280-629865/1		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
ICB 280-629865/2		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
LCS 280-629865/3		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
MB 280-629865/4		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCV 280-629865/15		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-629865/16		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629865 Batch Start Date: 10/13/23 21:36 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
CCV 280-629865/27		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-629865/28		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-182443-C-2	WBGmw-009-230901-GW	9060	T	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-182443-C-4	WBGmw-006-230901-GW	9060	T	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-182443-C-7	WBGmw-018-230901-GW	9060	T	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
LCS 280-629865/34		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
MB 280-629865/35		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629865 Batch Start Date: 10/13/23 21:36 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
CCV 280-629865/39		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-629865/40		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCV 280-629865/51		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-629865/52		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCV 280-629865/75		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-629865/76		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-182443-C-8	WBGMW-RB-018-2023	9060	T	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629865 Batch Start Date: 10/13/23 21:36 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
CCV 280-629865/87		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
CCB 280-629865/88		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

Batch Notes	
Acid ID	0.2% H2SO4_00475, H2SO4_00214
Combustion Catylyst ID	S638-92069-02
Pipette/Syringe/Dispenser ID	BWH 5000,1000 MS, 2192132
pH Paper ID	X002V4MOCL
Filter ID	0000174228-2239-DS
Vial Lot Number	0000047245
ICAL Reagent ID	TOC LCS Std_00059
Batch Comment	Run and reviewed by ABW

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629866 Batch Start Date: 10/13/23 21:36 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	Final pH	TOC ICV Std 00052	TOC LCS Std 00059
LCS 280-629866/3		9060		200 mL	200 mL	<2 SU	<2 SU		5 mL
MB 280-629866/4		9060		20 mL	20 mL	<2 SU	<2 SU		
280-182443-C-2	WBGmw-009-230901-GW	9060	T	20 mL	20 mL	<2 SU	<2 SU		
280-182443-C-4	WBGmw-006-230901-GW	9060	T	20 mL	20 mL	<2 SU	<2 SU		
280-182443-C-7	WBGmw-018-230901-GW	9060	T	20 mL	20 mL	<2 SU	<2 SU		
LCS 280-629866/34		9060		100 mL	100 mL	<2 SU	<2 SU	2.5 mL	
MB 280-629866/35		9060		20 mL	20 mL	<2 SU	<2 SU		
280-182443-C-8	WBGMW-RB-018-2023	9060	T	20 mL	20 mL	<2 SU	<2 SU		

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
LCS 280-629866/3		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
MB 280-629866/4		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-182443-C-2	WBGmw-009-230901-GW	9060	T	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-182443-C-4	WBGmw-006-230901-GW	9060	T	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629866 Batch Start Date: 10/13/23 21:36 Batch Analyst: Wondimu, Akewak B

Batch Method: 9060 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	AnalysisComment					
280-182443-C-7	WBGmw-018-230901-GW	9060	T	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
LCS 280-629866/34		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
MB 280-629866/35		9060		The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					
280-182443-C-8	WBGMW-RB-018-2023	9060	T	The final volume of these samples was fixed at 50 by the TOCControlV preprocessor.					

Batch Notes	
Acid ID	0.2% H2SO4_00475, H2SO4_00214
Combustion Catylyst ID	S638-92069-02
Pipette/Syringe/Dispenser ID	BWH 5000,1000 MS, 2192132
Filter ID	0000174228-2239-DS
pH Paper ID	X002V4MOCL
ICAL Reagent ID	TOC LCS Std_00059
Batch Comment	Run and reviewed by ABW

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629386 Batch Start Date: 10/11/23 14:53 Batch Analyst: Ince, Connor A

Batch Method: 9030B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	DistillUnitPort	Initial pH	Final pH	AcidVolAdded
LCS 280-629386/1		9030B, EPA 9034		50 mL	50 mL	10	7 SU	1 SU	5 mL
MB 280-629386/2		9030B, EPA 9034		50 mL	50 mL	9	7 SU	1 SU	5 mL
280-182443-D-2	WBGmw-009-230901-GW	9030B, EPA 9034	T	50 mL	50 mL	8	12+ SU	1 SU	5 mL
280-182443-D-2 MS	WBGmw-009-230901-GW	9030B, EPA 9034	T	50 mL	50 mL	7	12+ SU	1 SU	5 mL
280-182443-D-2 MSD	WBGmw-009-230901-GW	9030B, EPA 9034	T	50 mL	50 mL	6	12+ SU	1 SU	5 mL
280-182443-D-4	WBGmw-006-230901-GW	9030B, EPA 9034	T	50 mL	50 mL	5	12+ SU	1 SU	5 mL
280-182443-D-7	WBGmw-018-230901-GW	9030B, EPA 9034	T	50 mL	50 mL	4	12+ SU	1 SU	5 mL
280-182443-D-8	WBGMW-RB-018-2023	9030B, EPA 9034	T	50 mL	50 mL	3	12+ SU	1 SU	5 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	SFD CAL INT 02487					
LCS 280-629386/1		9030B, EPA 9034		1 mL					
MB 280-629386/2		9030B, EPA 9034							
280-182443-D-2	WBGmw-009-230901-GW	9030B, EPA 9034	T						
280-182443-D-2 MS	WBGmw-009-230901-GW	9030B, EPA 9034	T	1 mL					
280-182443-D-2 MSD	WBGmw-009-230901-GW	9030B, EPA 9034	T	1 mL					
280-182443-D-4	WBGmw-006-230901-GW	9030B, EPA 9034	T						
280-182443-D-7	WBGmw-018-230901-GW	9030B, EPA 9034	T						
280-182443-D-8	WBGMW-RB-018-2023	9030B, EPA 9034	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629386 Batch Start Date: 10/11/23 14:53 Batch Analyst: Ince, Connor A

Batch Method: 9030B Batch End Date:

Batch Notes	
Formaldehyde ID	Form_00125
Zinc Acetate Buffer ID	znac_00130
Pipette/Syringe/Dispenser ID	CAI 5000
Sulfuric Acid Reagent ID Number	SulfuricAcid_00288
Balance ID	M19170
Balance is Level? (Y/N)	yes
pH Indicator ID	HC312502
Oven, Bath or Block Temperature 1	80 Degrees C
Distillation Start Time	10/11/2023 14:45
Uncorrected Temperature 2	80 Degrees C
Oven, Bath or Block Temperature 2	80 Degrees C
Distillation End Time	10/11/2023 16:15
Batch Comment	CAI

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629388 Batch Start Date: 10/11/23 14:56 Batch Analyst: Ince, Connor A

Batch Method: EPA 9034 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStart1	BuretStop1	IodineAmount	TitrantVolume1	FinalAmount	
LCS 280-629386/1-A		EPA 9034		0.0 mL	2.8 mL	1.25 mL	2.8 mL	50 mL	
MB 280-629386/2-A		EPA 9034		2.8 mL	3.8 mL	0.25 mL	1 mL	50 mL	
280-182443-D-2-A	WBGmw-009-230901-GW	EPA 9034	T	3.8 mL	4.8 mL	0.25 mL	1 mL	50 mL	
280-182443-D-2-B MS	WBGmw-009-230901-GW	EPA 9034	T	4.8 mL	7.6 mL	1.25 mL	2.8 mL	50 mL	
280-182443-D-2-C MSD	WBGmw-009-230901-GW	EPA 9034	T	7.6 mL	10.5 mL	1.25 mL	2.9 mL	50 mL	
280-182443-D-4-A	WBGmw-006-230901-GW	EPA 9034	T	10.5 mL	11.5 mL	0.25 mL	1 mL	50 mL	
280-182443-D-7-A	WBGmw-018-230901-GW	EPA 9034	T	11.5 mL	12.5 mL	0.25 mL	1 mL	50 mL	
280-182443-D-8-A	WBGMW-RB-018-2023	EPA 9034	T	12.5 mL	13.5 mL	0.25 mL	1 mL	50 mL	

Batch Notes	
Normality of First Titrant	0.025 N
Normality of Iodine Solution	0.1 N
Zinc Acetate Buffer ID	znac_00130
Iodine ID	Iod_00279
Hydrochloric Acid ID	HCL Sol_00209
Sodium Thiosulfate ID	Na Thio_00185
Starch Reagent ID	Starch Ind_00072
Pipette/Syringe/Dispenser ID	CAI 5000
Batch Comment	CAI

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629347 Batch Start Date: 10/09/23 23:54 Batch Analyst: Luce, Luke

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 01110				
LCS 280-629347/4		SM 2320B		InitialAmount is blank	10 mL				
MB 280-629347/5		SM 2320B		InitialAmount is blank					
280-182443-E-2	WBGmw-009-230901-GW	SM 2320B	T	InitialAmount is blank					
280-182443-E-4	WBGmw-006-230901-GW	SM 2320B	T	InitialAmount is blank					
CCV 280-629347/16		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-629347/17		SM 2320B		InitialAmount is blank					
280-182443-E-7	WBGmw-018-230901-GW	SM 2320B	T	InitialAmount is blank					
280-182443-E-8	WBGMW-RB-018-2023	SM 2320B	T	InitialAmount is blank					
CCV 280-629347/28		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-629347/29		SM 2320B		InitialAmount is blank					

Batch Notes	
Nominal Amount Used	10 mL
Acid ID	0.02 H2SO4_00304
Normality of First Titrant	0.02 N
pH Buffer 1 ID	pH 2.0 buffer_00101
pH Buffer 2 ID	pH 4.0 buffer_00212
pH Buffer 3 ID	pH 7.0 buffer_00328
pH Buffer 4 ID	pH 10 buffer_00164
pH Buffer 5 ID	pH 12 buffer_00184
pH Buffer 6 ID	pH 7.0 buffer_00327
Probe ID	PCE 80 pH 1200D_8080
Batch Comment	LL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Denver Job No.: 280-182443-1

SDG No.:

Batch Number: 629347 Batch Start Date: 10/09/23 23:54 Batch Analyst: Luce, Luke

Batch Method: SM 2320B Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-Aug-2023 08:23:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-001
Misc. Info.: 280-0124540-001
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 17-Aug-2023 10:41:27 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:26:43

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.073	3.088	-0.015	6493840	NC	NC	Ma
2 Chloride	4.205	4.257	-0.052	16343527	NC	NC	
3 Nitrite as N	4.892	4.875	0.017	9494239	0.2000	0.1920	
4 Bromide	6.050	6.008	0.042	2213156	NC	NC	
5 Nitrate as N	6.813	6.717	0.096	8809383	0.2000	0.2157	
6 Orthophosphate as P	8.590	8.530	0.060	20373197	0.2000	0.1606	Ma
7 Sulfate	9.640	9.610	0.030	16127136	NC	NC	Ma

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

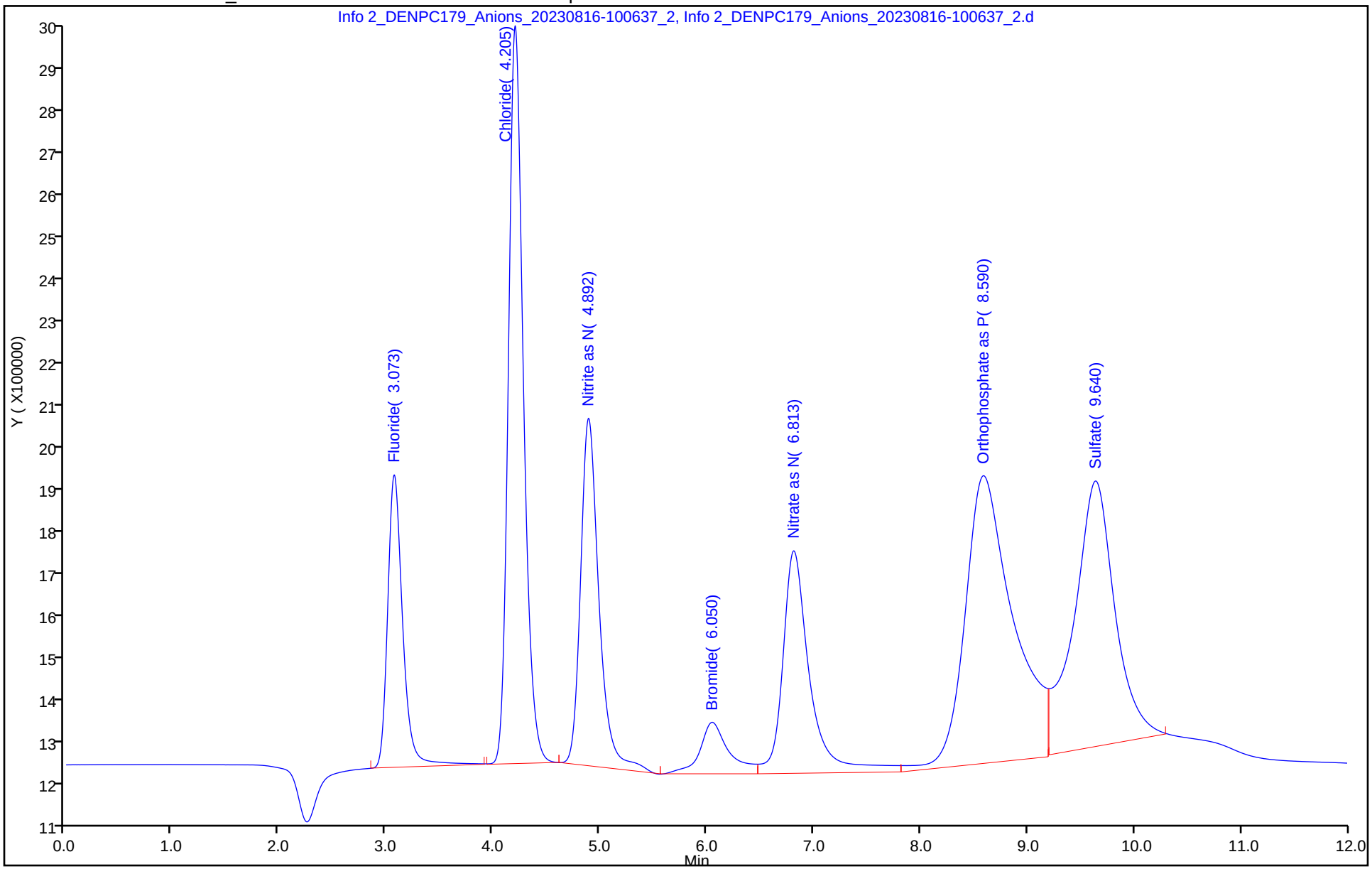
Reagents:

IC Cal low_00722 Amount Added: 0.04 Units: mL
IC CAL cl/so4_00494 Amount Added: 0.04 Units: mL

Report Date: 17-Aug-2023 10:41:27 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100637_2.d				
Injection Date:	16-Aug-2023 08:23:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD1			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 08:23:00 Instrument ID: WC_IonChrom10

Lims ID: STD1

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 1

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions

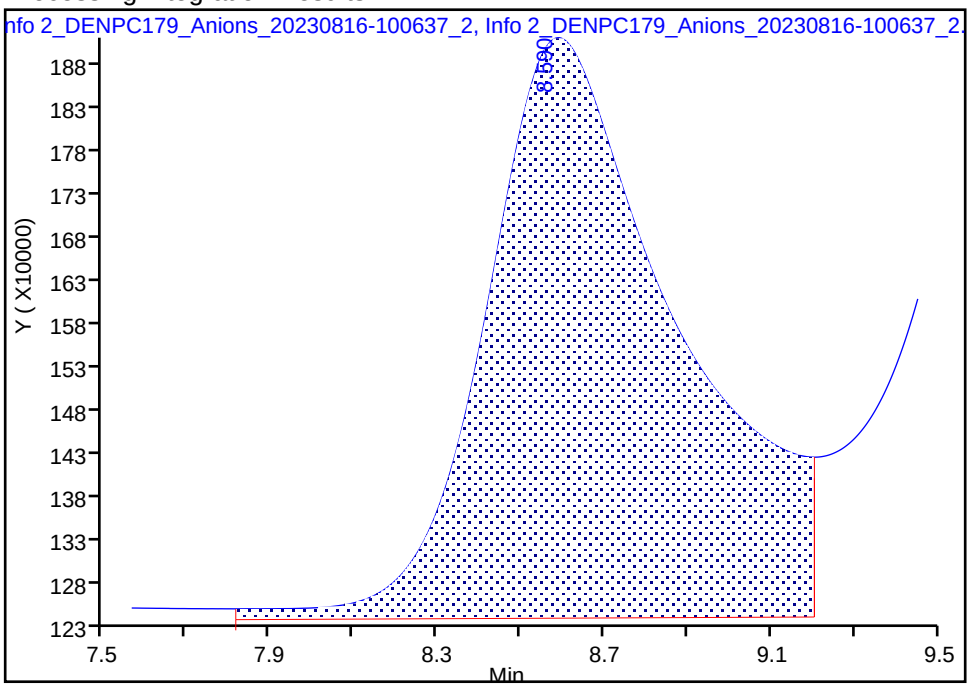
Column: Detector Info 2_091554_1

6 Orthophosphate as P, CAS: STL00599

Signal: 1

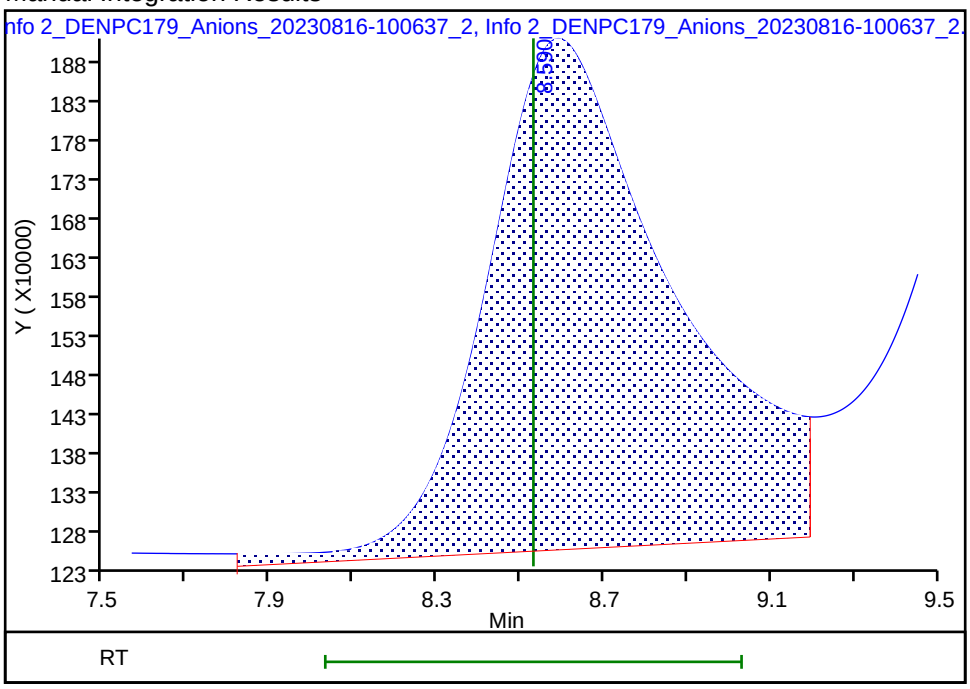
Processing Integration Results

RT: 8.59
Area: 21590016
Amount: 0.049185
Amount Units: ug/ml



Manual Integration Results

RT: 8.59
Area: 20373197
Amount: 0.160645
Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:42:23 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-Aug-2023 08:38:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-002
Misc. Info.: 280-0124540-002
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 17-Aug-2023 10:41:28 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:27:05

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.077	3.088	-0.011	18607618	NC	NC	Ma
2 Chloride	4.205	4.257	-0.052	44142315	NC	NC	
3 Nitrite as N	4.890	4.875	0.015	25589762	0.5000	0.4965	
4 Bromide	6.045	6.008	0.037	4337564	NC	NC	
5 Nitrate as N	6.797	6.717	0.080	22129548	0.5000	0.4867	
6 Orthophosphate as P	8.580	8.530	0.050	30713996	0.5000	0.5759	M
7 Sulfate	9.643	9.610	0.033	32737705	NC	NC	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

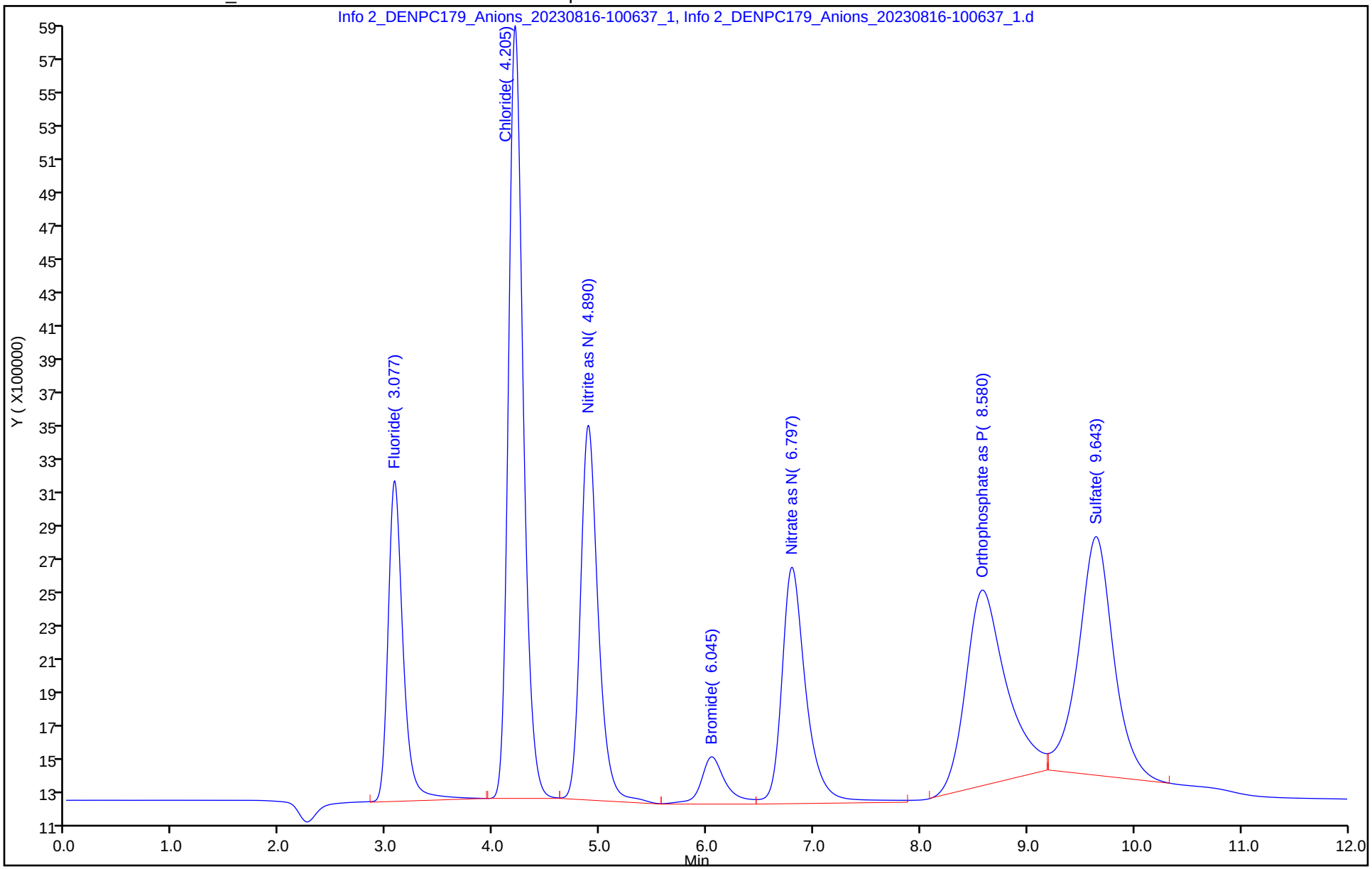
Reagents:

IC Cal low_00722 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00494 Amount Added: 0.10 Units: mL

Report Date: 17-Aug-2023 10:41:28 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100637_1.d				
Injection Date:	16-Aug-2023 08:38:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD2			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 08:38:00 Instrument ID: WC_IonChrom10

Lims ID: STD2

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions

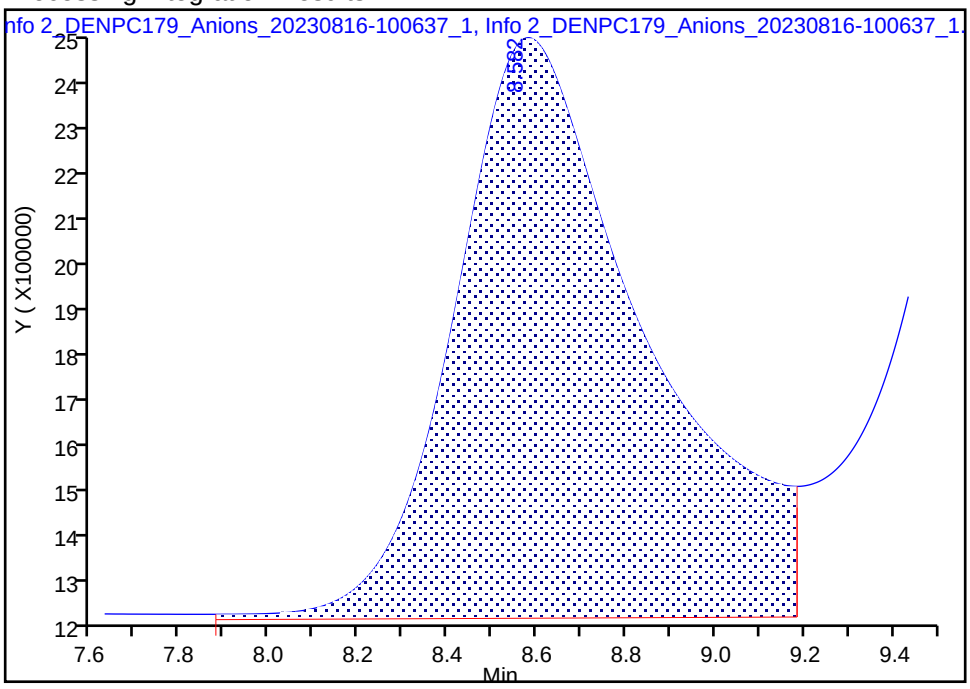
Column: Detector Info 2_091554_1

6 Orthophosphate as P, CAS: STL00599

Signal: 1

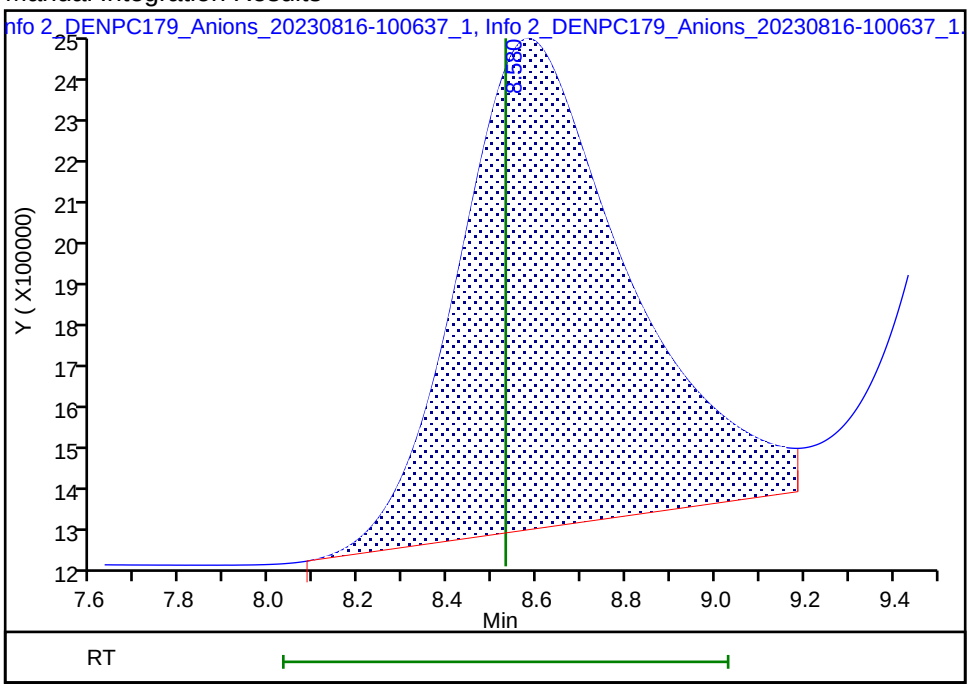
Processing Integration Results

RT: 8.58
Area: 37638482
Amount: 0.687214
Amount Units: ug/ml



Manual Integration Results

RT: 8.58
Area: 30713996
Amount: 0.575942
Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:36:01 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-Aug-2023 08:54:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-003
Misc. Info.: 280-0124540-003
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 17-Aug-2023 10:39:52 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:27:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.078	3.078	0.000	40803610	NC	NC	Ma
2 Chloride	4.202	4.238	-0.036	92390398	NC	NC	
3 Nitrite as N	4.885	4.873	0.012	53593060	1.00	1.03	
4 Bromide	6.037	6.012	0.025	7960626	NC	NC	
5 Nitrate as N	6.777	6.723	0.054	44959242	1.00	0.9512	
6 Orthophosphate as P	8.570	8.545	0.025	42106377	1.00	1.03	M
7 Sulfate	9.643	9.628	0.015	62271915	NC	NC	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

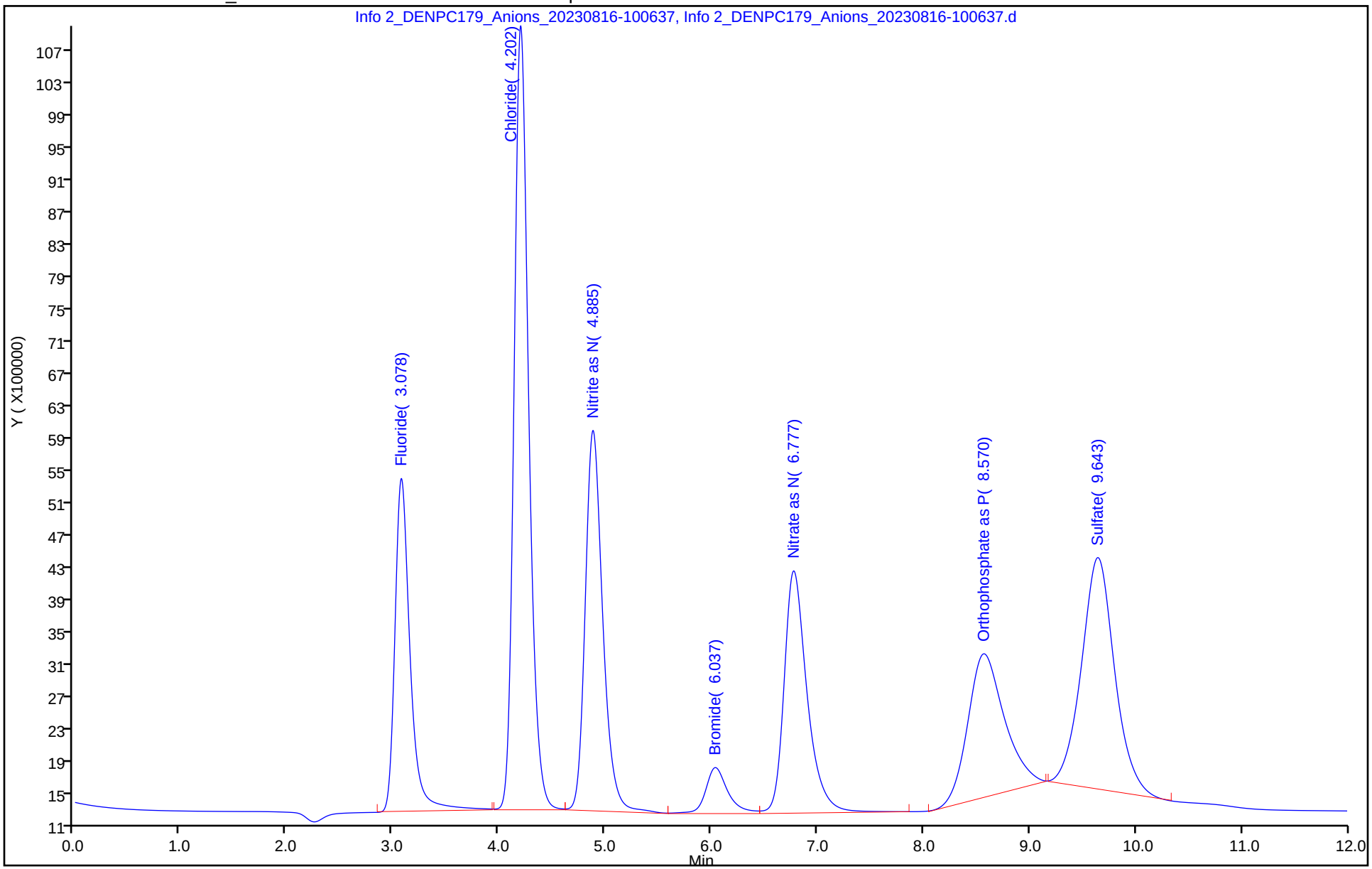
Reagents:

IC Cal low_00722 Amount Added: 0.20 Units: mL
IC CAL cl/so4_00494 Amount Added: 0.20 Units: mL

Report Date: 17-Aug-2023 10:39:52 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100637.d				
Injection Date:	16-Aug-2023 08:54:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD3			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 08:54:00 Instrument ID: WC_IonChrom10

Lims ID: STD3

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions

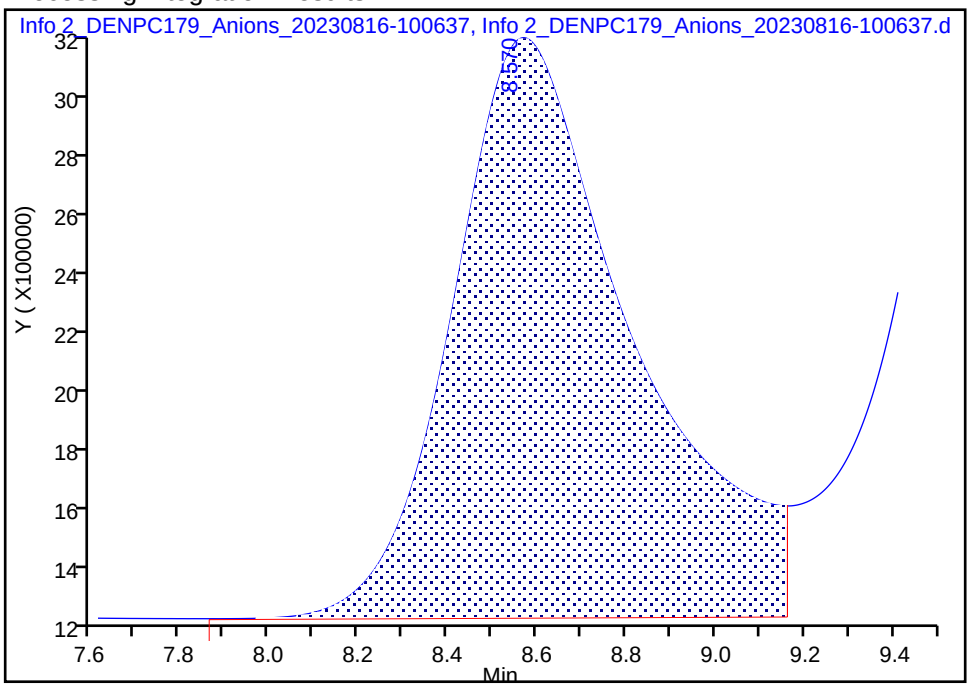
Column: Detector Info 2_091554_1

6 Orthophosphate as P, CAS: STL00599

Signal: 1

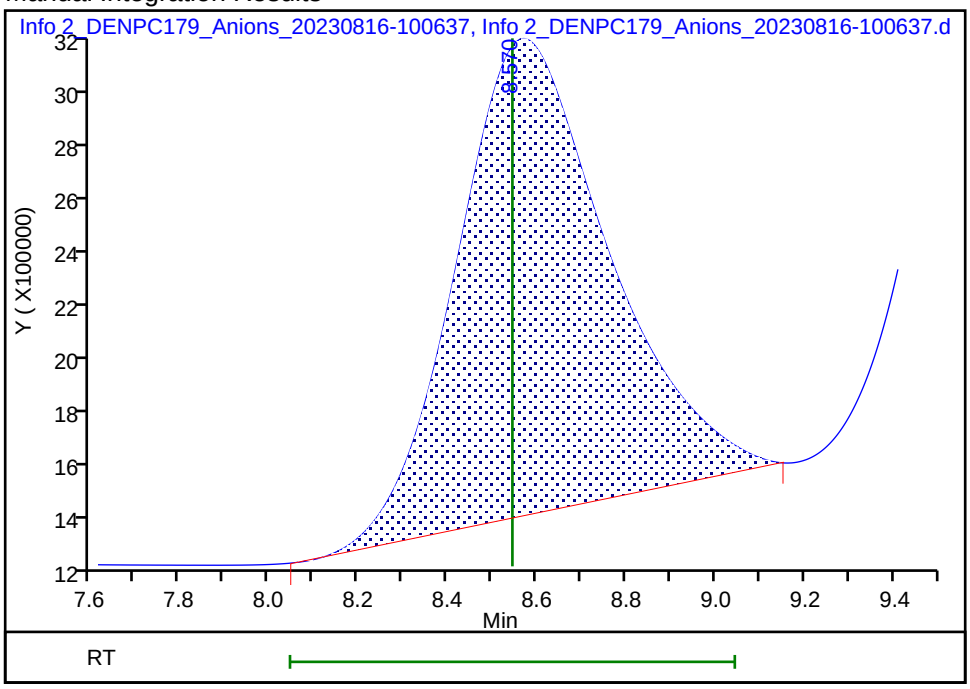
Processing Integration Results

RT: 8.57
Area: 55252876
Amount: 1.438957
Amount Units: ug/ml



Manual Integration Results

RT: 8.57
Area: 42106377
Amount: 1.033471
Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:27:44 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-Aug-2023 09:09:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-004
Misc. Info.: 280-0124540-004
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 17-Aug-2023 10:41:29 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:28:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.083	0.000	171459973	NC	NC	Ma
2 Chloride	4.225	4.225	0.000	1158723576	NC	NC	
3 Nitrite as N	4.877	4.877	0.000	218611235	4.00	4.15	
4 Bromide	6.022	6.022	0.000	32146652	NC	NC	
5 Nitrate as N	6.737	6.737	0.000	192114513	4.00	3.94	
6 Orthophosphate as P	8.543	8.543	0.000	118853705	4.00	4.12	M
7 Sulfate	9.627	9.627	0.000	859732703	NC	NC	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

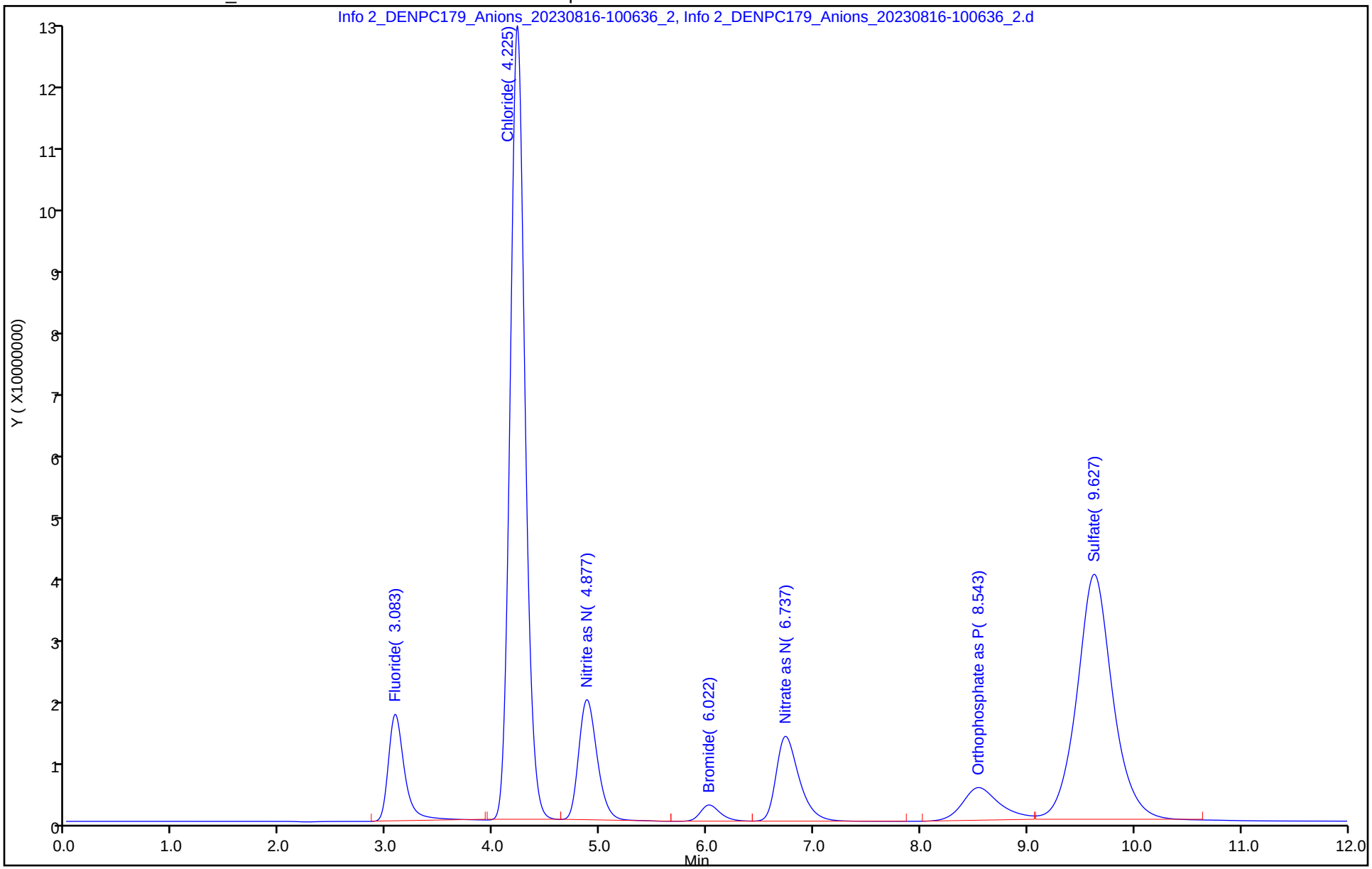
Reagents:

IC Cal low_00722 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00494 Amount Added: 2.40 Units: mL

Report Date: 17-Aug-2023 10:41:29 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100636_2.d				
Injection Date:	16-Aug-2023 09:09:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD4			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 09:09:00 Instrument ID: WC_IonChrom10

Lims ID: STD4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions

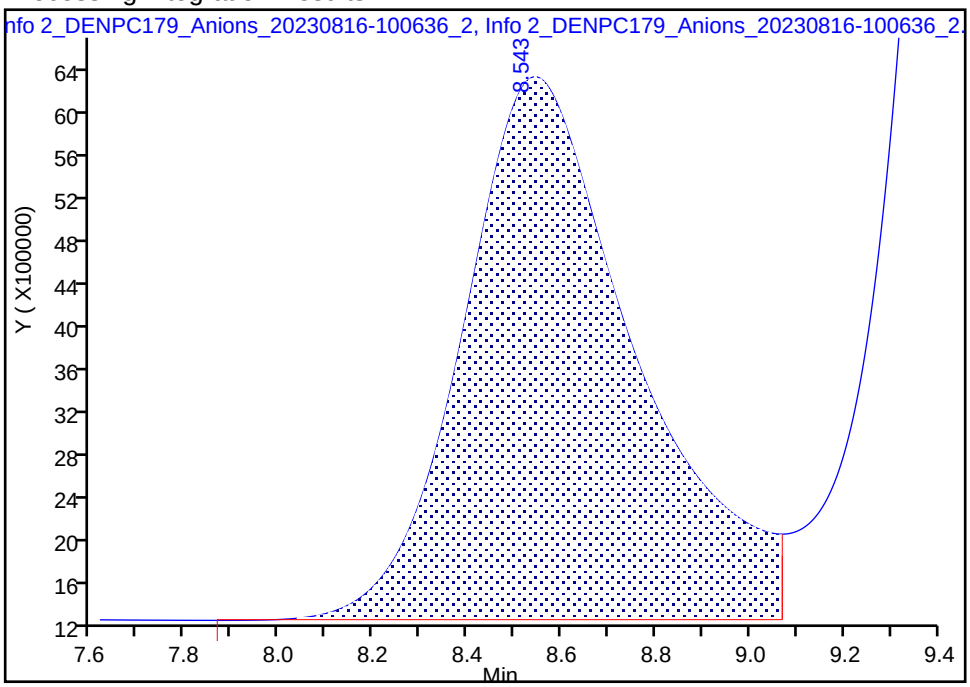
Column: Detector Info 2_091554_1

6 Orthophosphate as P, CAS: STL00599

Signal: 1

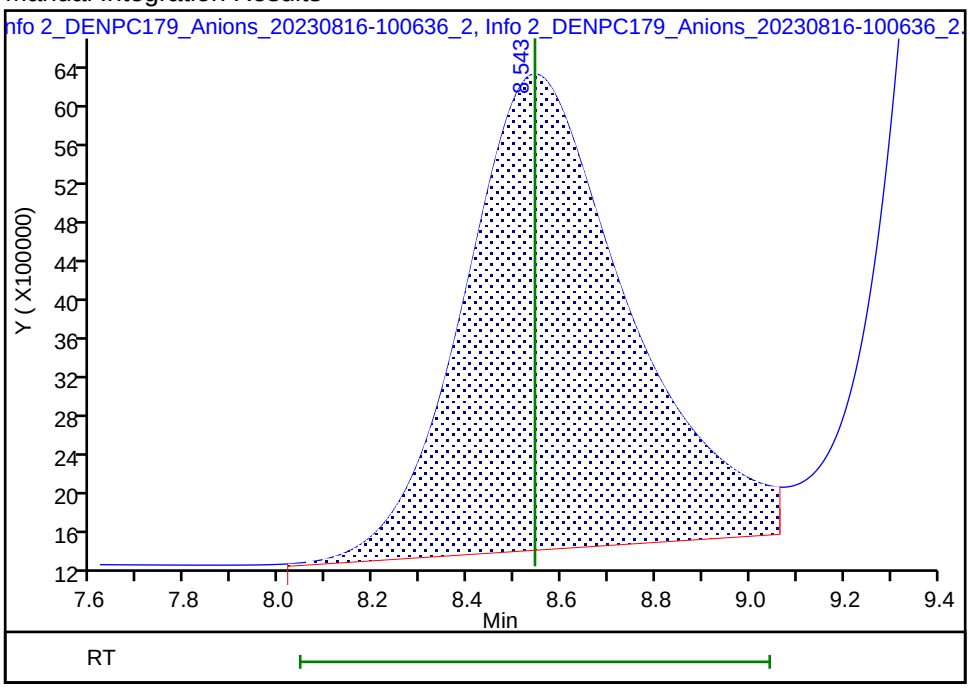
Processing Integration Results

RT: 8.54
Area: 129165919
Amount: 4.442737
Amount Units: ug/ml



Manual Integration Results

RT: 8.54
Area: 118853705
Amount: 4.115722
Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:28:08 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 16-Aug-2023 09:24:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-005
Misc. Info.: 280-0124540-005
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 17-Aug-2023 10:41:30 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:30:04

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.088	3.088	0.000	330613515	NC	NC	Ma
2 Chloride	4.257	4.257	0.000	2318734502	NC	NC	
3 Nitrite as N	4.875	4.875	0.000	422833757	8.00	8.01	
4 Bromide	6.008	6.008	0.000	66462794	NC	NC	
5 Nitrate as N	6.717	6.717	0.000	392369909	8.00	8.02	
6 Orthophosphate as P	8.530	8.530	0.000	216637163	8.00	8.04	
7 Sulfate	9.610	9.610	0.000	1757412080	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

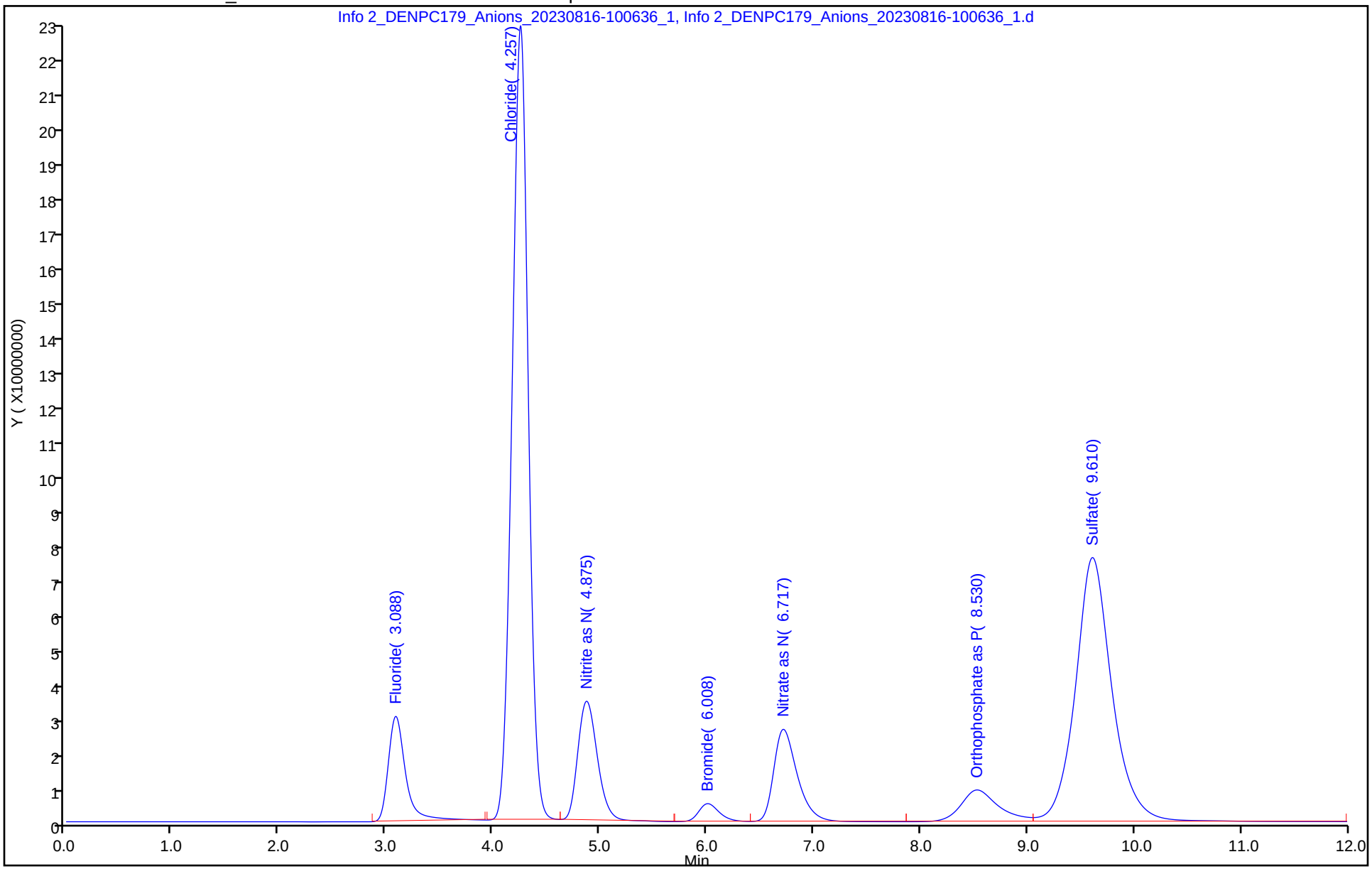
Reagents:

IC Cal low_00722 Amount Added: 1.60 Units: mL
IC CAL cl/so4_00494 Amount Added: 4.80 Units: mL

Report Date: 17-Aug-2023 10:41:31 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100636_1.d				
Injection Date:	16-Aug-2023 09:24:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD5			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-Aug-2023 09:39:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-006
Misc. Info.: 280-0124540-006
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 17-Aug-2023 10:39:54 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:29:55

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.085	3.088	-0.003	411861883	NC	NC	Ma
2 Chloride	4.292	4.257	0.035	3859357572	NC	NC	
3 Nitrite as N	4.877	4.875	0.002	519039593	10.0	9.83	
4 Bromide	5.998	6.008	-0.010	84169414	NC	NC	
5 Nitrate as N	6.708	6.717	-0.009	493796088	10.0	10.1	
6 Orthophosphate as P	8.523	8.530	-0.007	259679126	10.0	9.77	
7 Sulfate	9.588	9.610	-0.022	2909731694	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

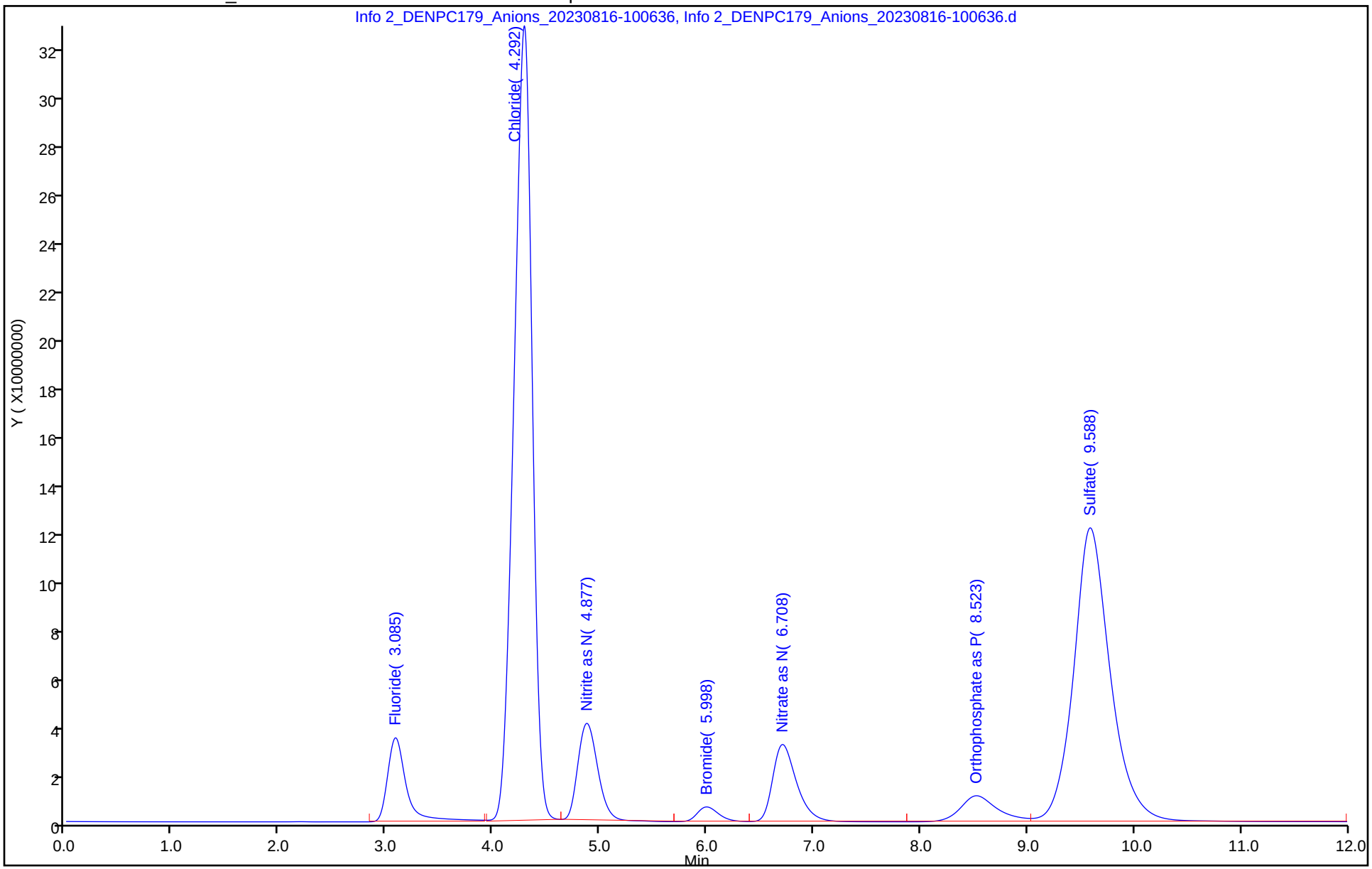
Reagents:

IC Cal low_00722 Amount Added: 2.00 Units: mL
IC CAL cl/so4_00494 Amount Added: 8.00 Units: mL

Report Date: 17-Aug-2023 10:39:54 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100636.d				
Injection Date:	16-Aug-2023 09:39:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD6			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Environment Testing America
Worklist Report

Worklist Name: 08 15 23 CAL
Worklist Number: 124540
Instrument Name: WC_IonChrom10
Chrom Method: Anions_IC10
Injection Volume: 5.000
Units: ul
Analysis Type: Semi VOA
Batch Directory: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b
Upload Directory: \\CORPTALSAPP16\280-DN-RawData\WetChem\IonChrom10

Smp #	Lims ID	Smp Type	Ical Lvl	Dil Fact	Fract	Initial Vol/Wt	Vol/Wt Units	Sample Reagents	pH	Comment
1	# 1 STD1	IC	1	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
2	# 2 STD2	IC	2	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
3	# 3 STD3	IC	3	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
4	# 4 STD4	IC	4	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
5	# 5 STD5	IC	5	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
6	# 6 STD6	IC	6	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
7	# 7 rtc	RTC		1.000	rectInjection	10.00	mL	IC LCS_01972		
8	# 8 icv	ICV		1.000	rectInjection	10.00	mL	IC ICV 5_00413 IC SO4 ICV_00024 Cl ICV Std_00006		
9	# 9 icb	ICB		1.000	rectInjection	10.00	mL			
10	#10 mrl	MRL		1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
11	#11 lcs	LCS		1.000	rectInjection	10.00	mL	IC LCS_01972		
12	#12 lcsd	LCSD		1.000	rectInjection	10.00	mL	IC LCS_01972		
13	#13 mb	MB		1.000	rectInjection	10.00	mL			
14	#14 280-180347-D-18	Client		1.000	rectInjection	10.00	mL			
15	#15 280-180347-D-19	Client		1.000	rectInjection	10.00	mL			
16	#16 280-180347-D-20	Client		1.000	rectInjection	10.00	mL			
17	#17 280-179722-B-11-A	Client		1.000	rectInjection	10.00	mL			
18	#18 280-179722-B-11-A	Client		10.00	rectInjection	10.00	mL			
19	#19 280-179722-C-6-A	Client		1.000	rectInjection	10.00	mL			
20	#20 280-179722-C-6-A	Client		10.00	rectInjection	10.00	mL			
21	#21 280-180350-B-2	Client		1.000	rectInjection	10.00	mL			
22	#22 280-180350-B-3	Client		1.000	rectInjection	10.00	mL			
23	#23 280-180361-A-2	Client		1.000	rectInjection	10.00	mL			
24	#24 ccv	CCV		1.000	rectInjection	10.00	mL	IC LCS_01972		
25	#25 ccb	CCB		1.000	rectInjection	10.00	mL			
26	#26 280-180361-A-2 DU	DU		1.000	rectInjection	10.00	mL			
27	#27 280-180361-A-2 MS	MS		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
28	#28 280-180361-A-2 MSD	MSD		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
29	#29 280-180361-A-1	Client		10.00	rectInjection	10.00	mL			
30	#30 280-180349-B-2	Client		1.000	rectInjection	10.00	mL			
31	#31 280-180363-A-1	Client		1.000	rectInjection	10.00	mL			
32	#32 280-180362-A-1	Client		5.000	rectInjection	10.00	mL			
33	#33 280-180359-A-3	Client		1.000	rectInjection	10.00	mL			
34	#34 280-180362-A-2	Client		5.000	rectInjection	10.00	mL			
35	#35 280-180359-A-2	Client		2.000	rectInjection	10.00	mL			
36	#36 ccv	CCV		1.000	rectInjection	10.00	mL	IC LCS_01972		
37	#37 ccb	CCB		1.000	rectInjection	10.00	mL			
38	#38 280-180363-A-3	Client		1.000	rectInjection	10.00	mL			
39	#39 280-180363-A-2	Client		1.000	rectInjection	10.00	mL			
40	#40 280-180363-A-2 DU	DU		1.000	rectInjection	10.00	mL			
41	#41 280-180363-A-2 MS	MS		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
42	#42 280-180363-A-2 MSD	MSD		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
43	#43 280-180359-A-4	Client		1.000	rectInjection	10.00	mL			
44	#44 280-180349-B-3	Client		1.000	rectInjection	10.00	mL			
45	#45 280-180359-A-1	Client		1.000	rectInjection	10.00	mL			
46	#46 lcs	LCS		1.000	rectInjection	10.00	mL	IC LCS_01972		
47	#47 lcsd	LCSD		1.000	rectInjection	10.00	mL	IC LCS_01972		
48	#48 ccv	CCV		1.000	rectInjection	10.00	mL	IC LCS_01972		
49	#49 ccb	CCB		1.000	rectInjection	10.00	mL			
50	#50 mb	MB		1.000	rectInjection	10.00	mL			
51	#51 280-180355-A-1	Client		1.000	rectInjection	10.00	mL			
52	#52 280-180360-B-5	Client		2.000	rectInjection	10.00	mL			
53	#53 280-180362-A-4	Client		1.000	rectInjection	10.00	mL			
54	#54 280-180362-A-4 DU	DU		1.000	rectInjection	10.00	mL			

Smp #	Lims ID	Smp Type	Ical Lvl	Dil Fact	Fract	Initial Vol/Wt	Vol/Wt Units	Sample Reagents	pH	Comment
55	#55 280-180362-A-4 MS	MS		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
56	#56 280-180362-A-4 MSD	MSD		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
57	#57 280-180360-B-3	Client		1.000	rectInjection	10.00	mL			
58	#58 280-180360-B-1	Client		1.000	rectInjection	10.00	mL			
59	#59 ccv	CCV		1.000	rectInjection	10.00	mL	IC LCS_01972		
60	#60 ccb	CCB		1.000	rectInjection	10.00	mL			

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-Aug-2023 11:15:05
No.Compounds:7
Sublist: chrom-Anions_IC10*sub9
Limit Group: Wet - Anions

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:23:00 Worklist: 124540 Sample#: 1
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:38:00 Worklist: 124540 Sample#: 2
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:54:00 Worklist: 124540 Sample#: 3
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:09:00 Worklist: 124540 Sample#: 4
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:24:00 Worklist: 124540 Sample#: 5
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:39:00 Worklist: 124540 Sample#: 6

Start Cal Date: 16-Aug-2023 08:23:00 End Cal Date: 16-Aug-2023 09:39:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
47471195	51179524	53593060	54652809	52854220	51903959	-659672			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		52874248		
9494239	25589762	53593060	218611235	422833757	519039593				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
5 Nitrate as N				Signal: 1					
44046915	44259096	44959242	48028628	49046239	49379609	-1793758			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		49153639		
8809383	22129548	44959242	192114513	392369909	493796088				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
6 Orthophosphate as P				Signal: 1					
101865985	61427992	42106377	29713426	27079645	25967913	16373185			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		24899766		
M20373197	M30713996	M42106377	M118853705	216637163	259679126				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-Aug-2023 11:15:05
No.Compounds:7
Sublist: chrom-Anions_IC10*sub9
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:23:00 Worklist: 124540 Sample#: 1
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:38:00 Worklist: 124540 Sample#: 2
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:54:00 Worklist: 124540 Sample#: 3
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:09:00 Worklist: 124540 Sample#: 4
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:24:00 Worklist: 124540 Sample#: 5
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:39:00 Worklist: 124540 Sample#: 6

Start Cal Date: 16-Aug-2023 08:23:00 End Cal Date: 16-Aug-2023 09:39:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride				Signal: 1					
32469200	37215236	40803610	42864993	41326689	41186188	-1753153			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		41787315		
M6493840	M18607618	M40803610	M171459973	M330613515	M411861883				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
2 Chloride				Signal: 1					
16343527	17656926	18478080	19312060	19322788	19296788	-3421991			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		19331335		
16343527	44142315	92390398	1158723576	2318734502	3859357572				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
4 Bromide				Signal: 1					
11065780	8675128	7960626	8036663	8307849	8416941	361716			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		8232908		
2213156	4337564	7960626	32146652	66462794	84169414				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
7 Sulfate				Signal: 1					
16127136	13095082	12454383	14328878	14645101	14548658	-1219203			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		14531090		
M16127136	M32737705	M62271915	M859732703	1757412080	2909731694				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				

Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 16-Aug-2023 10:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-008
Misc. Info.: 280-0124540-008
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 11:15:05 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10(

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 17-Aug-2023 11:27:01

Start Cal Date: 16-Aug-2023 08:23:00
End Cal Date: 16-Aug-2023 09:39:00

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
1 Fluoride	4.00	3.60	*-10.0	10.0	90.0	
2 Chloride	80.0	84.0	5.0	10.0	105.0	
4 Bromide	4.00	3.88	-3.1	10.0	96.9	
7 Sulfate	80.0	81.1	1.3	10.0	101.3	

Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 16-Aug-2023 10:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-008
Misc. Info.: 280-0124540-008
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 17-Aug-2023 11:27:17 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10(

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 17-Aug-2023 11:27:17

Start Cal Date: 16-Aug-2023 08:23:00
End Cal Date: 16-Aug-2023 09:39:00

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
3 Nitrite as N	4.00	4.14	3.5	10.0	103.5	
5 Nitrate as N	4.00	3.95	-1.2	10.0	98.8	
6 Orthophosphate as	4.00	4.21	5.3	10.0	105.3	

phenova™ | A Phenomenex® Company
Certified Reference Materials

6390 Joyce Drive
100
Golden, CO 80403

Phone 303-940-0033
Fax 866-283-0269
www.phenova.com

Soil / Hazardous Waste PT Concentration Ranges and PTRLs

PTRL TNI Proficiency Testing Reporting Limits (PTRLs) are provided as guidance to laboratories analyzing TNI PT samples. At a minimum, the laboratory should use a method that is sensitive enough to generate quantitative results at the PTRLs shown. (REF: TNI PT FOT Tables)

NA Not Applicable (NA) has been applied to analytes where a PTRL is not applicable and to state specific analytes that have not had a PTRL determined by the applicable accrediting agency.

Nitrite in Soil

NELAC Code	Analyte Name	Units	Concentration Range	PTRL
1840	Nitrite as N	mg/kg	10.0 - 500	NA

phenova™ | A Phenomenex® Company
Certified Reference Materials

6390 Joyce Drive
100
Golden, CO 80403

Phone 303-940-0033
Fax 866-283-0269
www.phenova.com

Instructions for Soil (HW) - Nitrite as N

SAMPLE DESCRIPTION

- Provided in two different containers.
- Provided as a 20 g Ottawa sand matrix in a 40 mL VOA vial.
- Provided as a 5 mL spiking solution in water flame sealed in a 5 mL amber ampoule.
- The standard should be stored at 4±2°C.

GENERAL INFORMATION

- This standard is pre-dried so percent moisture is 0%.
- After spiking, the diluted standard will contain the analyte in the concentration range.
- Store any remaining standard at 4±2°C.
- It is recommended to save any remaining standard until final reports have been sent.

ADDITIONAL INFORMATION

- Use a sample weight of 10 grams when reporting.
- Due to the nature of this standard, the standard should be analyzed immediately after dilution.

INSTRUCTIONS

- The standard should be brought to room temperature when used.
- Open the blank soil matrix vial and transfer the 10.0 g of the matrix into your extraction vessel.
- Carefully open the ampule by snapping off the top at the narrow part of the neck.
- Using a gas tight syringe, transfer exactly 1.0 mL of the spiking solution onto the blank soil matrix in the extraction vessel.
- The standard is now ready for preparation and analysis per your normal procedure.
- Due to the nature of this standard, the standard should be analyzed **immediately** after dilution.
- Report result in mg/kg.

Please take all necessary safety precautions when handling this product. Phenova products are intended for use by laboratory professionals only and may be hazardous. Buyer/user shall ensure sufficient knowledge, training, facilities and skills necessary to safely handle and store products provided. Material Safety Data Sheets (MSDS) for all Phenova products are available upon request.

eurofins | Environment Testing TestAmerica

Performance Test (PT) Preparation Form

Preparation

Job #: 280-179722 Sample # 11

Method: 9056 48Hr

Sample Name (*from vial or PT instructions*): Soil (HW) Nitrite as N

Standard Lot #(s) or Vial #(s) (If Applicable): 7093-71

Analyst Review of PT Instructions by (Initials): MEC (Date): 8/16/23

PT Sample Type: X Ampoule ____ Whole volume

Volume or Weight of PT Sample Used : 1 (Units): mL

Prepared Volume of diluted PT Sample (If reagent blank spiked from ampoule):

10 (Units): G or 100 mL

2nd Analyst Witness/Review of PT Instructions by (Initials): mp (Date): 8-16-23
(This 2nd level review is to be done at the time of PT preparation)

Include a copy of the PT instructions with this form, and include both in the batch folder.

phenova™ | A Phenomenex® Company
Certified Reference Materials

6390 Joyce Drive
100
Golden, CO 80403

Phone 303-940-0033
Fax 866-283-0269
www.phenova.com

Soil / Hazardous Waste PT Concentration Ranges and PTRLs

PTRL TNI Proficiency Testing Reporting Limits (PTRLs) are provided as guidance to laboratories analyzing TNI PT samples. At a minimum, the laboratory should use a method that is sensitive enough to generate quantitative results at the PTRLs shown. (REF: TNI PT FOT Tables)

NA Not Applicable (NA) has been applied to analytes where a PTRL is not applicable and to state specific analytes that have not had a PTRL determined by the applicable accrediting agency.

Anions

NELAC Code	Analyte Name	Units	Concentration Range	PTRL
1540	Bromide	mg/kg	10.0 - 100	1.00
1575	Chloride	mg/kg	200 - 1000	20.0
1730	Fluoride	mg/kg	25.0 - 500	2.50
1810	Nitrate as N	mg/kg	25.0 - 500	2.50
2000	Sulfate	mg/kg	25.0 - 2000	2.50
1870	Orthophosphate as P	mg/kg	25.0 - 500	NA

phenova™ | A Phenomenex® Company
Certified Reference Materials

6390 Joyce Drive
100
Golden, CO 80403

Phone 303-940-0033
Fax 866-283-0269
www.phenova.com

Instructions for Soil (HW) - Anions

SAMPLE DESCRIPTION

- Provided as a 40 g pre-spiked soil matrix in a 2 oz glass jar.
- This standard can be stored at room temperature (20 - 25° C).

GENERAL INFORMATION

- This standard is pre-spiked and ready to use,
- This standard is pre-dried so percent moisture is 0%.
- The standard will contain the analytes within the required concentration range.
- Store any remaining standard at room temperature (20 - 25° C).
- It is recommended to save any remaining standard until final reports have been sent.

ADDITIONAL INFORMATION

- This standard was designed for use with deionized water extraction technique.
- Due to potential settling during shipping, homogenize this standard before taking an aliquot.

INSTRUCTIONS

- This standard is pre-spiked and ready to use.
- Thoroughly mix the standard prior to removing an aliquot.
- Extract an aliquot of the sample and analyze by your normal procedure.
- Report result in mg/kg.

Please take all necessary safety precautions when handling this product. Phenova products are intended for use by laboratory professionals only and may be hazardous. Buyer/user shall ensure sufficient knowledge, training, facilities and skills necessary to safely handle and store products provided. Material Safety Data Sheets (MSDS) for all Phenova products are available upon request.

eurofins | Environment Testing TestAmerica

Performance Test (PT) Preparation Form

Preparation

Job #: 280-179722 Sample # 6

Method: ~~300~~ MEC 9056 48Hr/28D

Sample Name (*from vial or PT instructions*): Soil (HW) - Anions

Standard Lot #(s) or Vial #(s) (If Applicable): 7093-08

Analyst Review of PT Instructions by (Initials): MEC (Date): 8/16/23

PT Sample Type: _____ Ampoule ____ Whole volume

Volume or Weight of PT Sample Used : 10 (Units): G

Prepared Volume of diluted PT Sample (If reagent blank spiked from ampoule):

_____(Units):_____

2nd Analyst Witness/Review of PT Instructions by (Initials): mp (Date): 8-16-23
(This 2nd level review is to be done at the time of PT preparation)

Include a copy of the PT instructions with this form, and include both in the batch folder.

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-104
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 16-Aug-2023 10:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-008
Misc. Info.: 280-0124540-008
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 17-Aug-2023 11:45:40 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 17-Aug-2023 11:27:17

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.078	3.078	0.000	148600573	NC	NC	Ma
2 Chloride	4.238	4.238	0.000	1620371327	NC	NC	
3 Nitrite as N	4.873	4.873	0.000	218249168	4.00	4.14	
4 Bromide	6.012	6.012	0.000	32280328	NC	NC	
5 Nitrate as N	6.723	6.723	0.000	192424246	4.00	3.95	
6 Orthophosphate as P	8.545	8.545	0.000	121270311	4.00	4.21	
7 Sulfate	9.628	9.628	0.000	1176664399	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

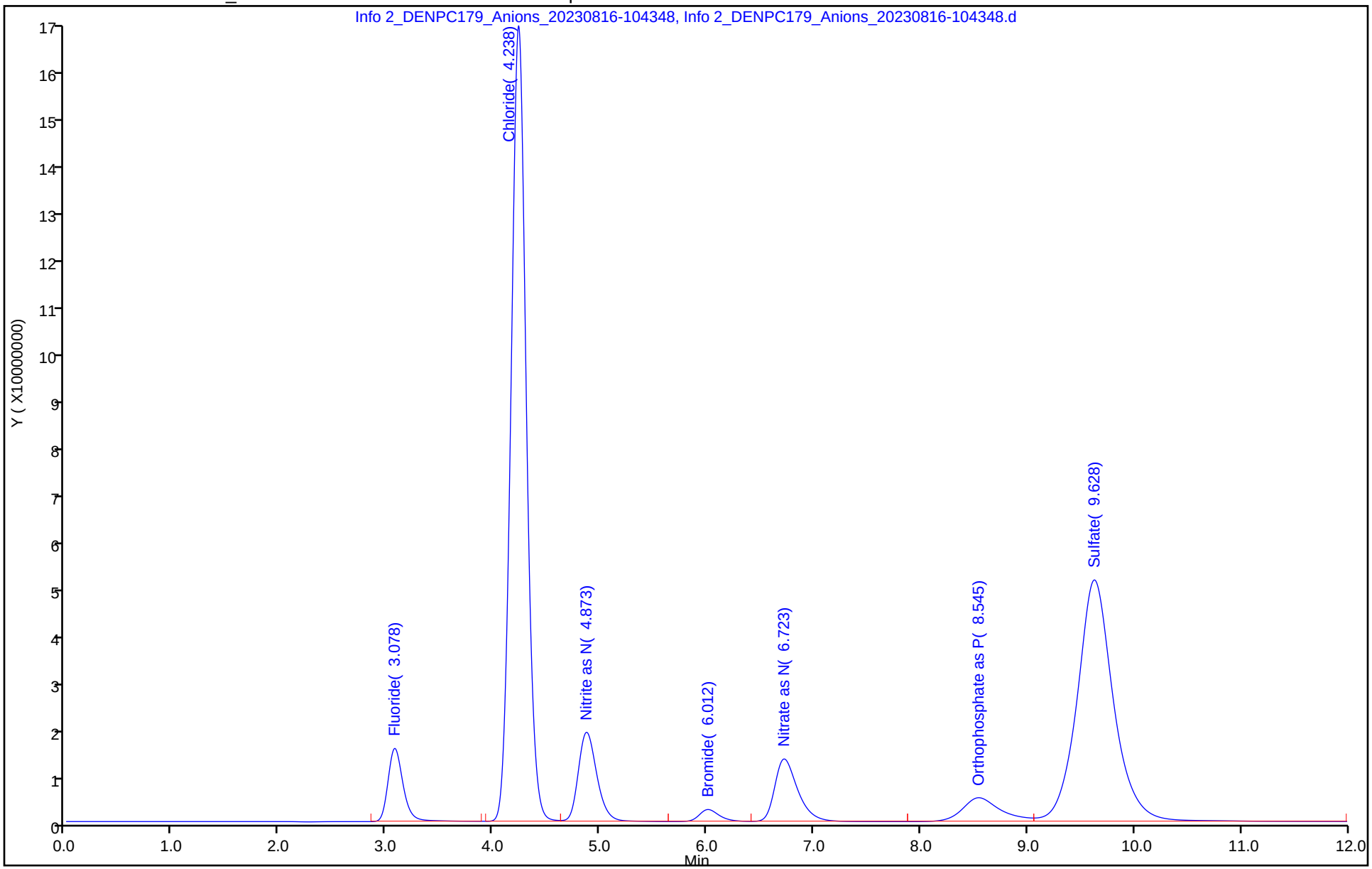
Reagents:

IC ICV 5_00413	Amount Added:	0.80	Units: mL
IC SO4 ICV_00024	Amount Added:	0.80	Units: mL
Cl ICV Std_00006	Amount Added:	0.80	Units: mL

Report Date: 17-Aug-2023 11:45:40 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-104348.d				
Injection Date:	16-Aug-2023 10:08:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	icv			Worklist Smp#:	8
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-104
Lims ID: icb
Client ID:
Sample Type: ICB
Inject. Date: 16-Aug-2023 10:23:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-009
Misc. Info.: 280-0124540-009
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 17-Aug-2023 11:45:40 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.200	4.238	-0.038	264090		NC	
3 Nitrite as N	4.857	4.873	-0.016	208499		0.0164	
4 Bromide	6.118	6.012	0.106	349466		NC	
5 Nitrate as N		6.723				ND	
6 Orthophosphate as P	8.595	8.545	0.050	6392990		-0.4008	
7 Sulfate	9.723	9.628	0.095	5568928		NC	

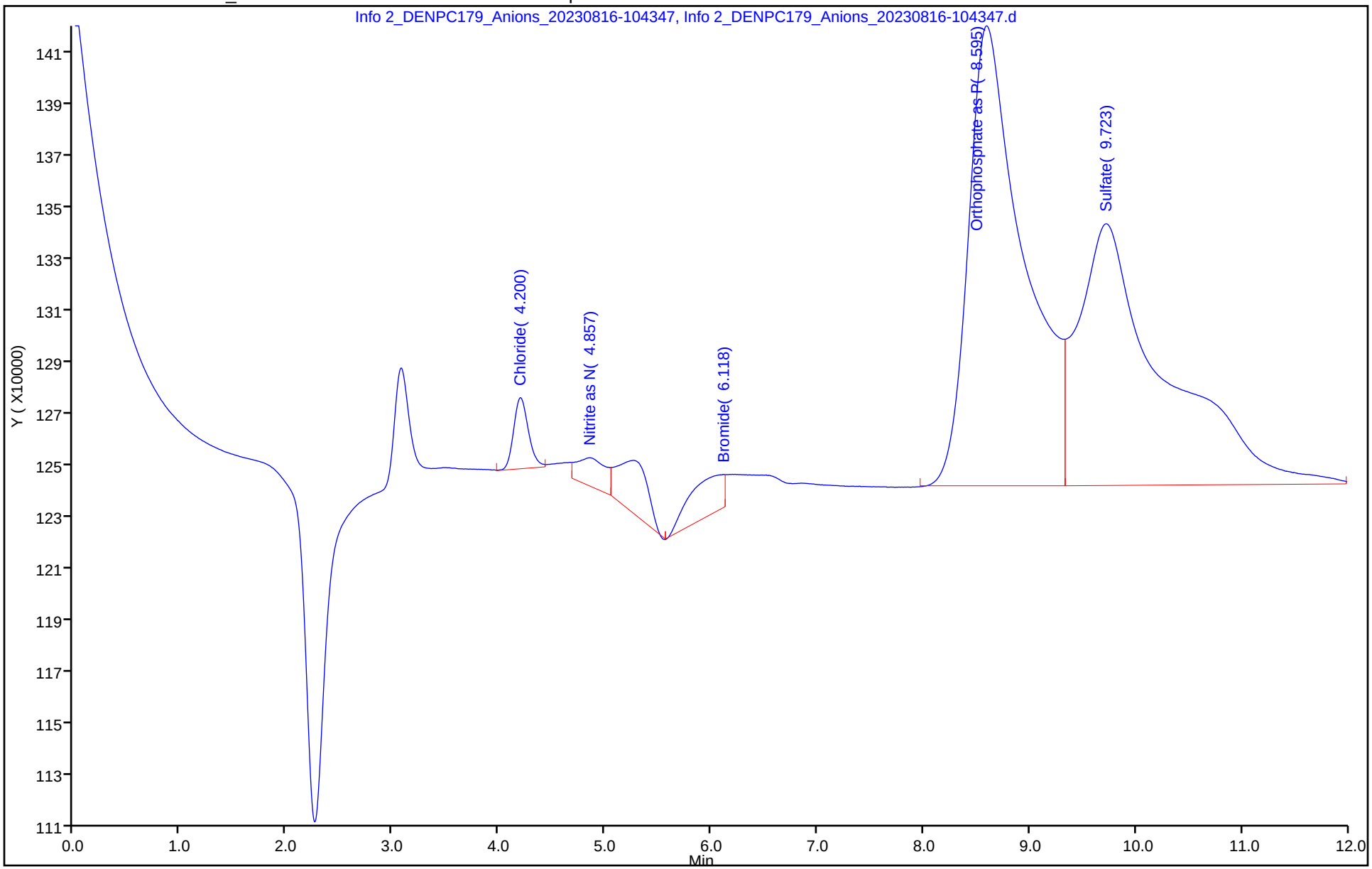
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 17-Aug-2023 11:45:41 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-104347.d				
Injection Date:	16-Aug-2023 10:23:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	icb			Worklist Smp#:	9
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Environment Testing
Worklist Report

Worklist Name: 10 05 23 Worklist Number: 126193
Instrument Name: WC_IonChrom10 Chrom Method: Anions_IC10
Injection Volume: 5.000 Units: ul
Analysis Type: Semi VOA
Batch Directory: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b
Upload Directory: \\CORPTALSAPP16\280-DN-RawData\WetChem\IonChrom10

Smp #	Lims ID	Smp Type	Dil Fact	Fract	Initial Vol/Wt	Vol/Wt Units	Sample Reagents	pH	Comment
1	# 1 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
2	# 2 ccb	CCB	1.000	irectInjection	10.00	mL			
3	# 3 mrl	MRL	1.000	irectInjection	10.00	mL	IC Cal low_00732 IC CAL cl/so4_00502		
4	# 4 lcs	LCS	1.000	irectInjection	10.00	mL	IC LCS_01981		
5	# 5 lcsd	LCSD	1.000	irectInjection	10.00	mL	IC LCS_01981		
6	# 6 mb	MB	1.000	irectInjection	10.00	mL			
7	# 7 280-182443-E-2	Client	1.000	irectInjection	10.00	mL			
8	# 8 280-182443-E-2 DU	DU	1.000	irectInjection	10.00	mL			
9	# 9 280-182443-E-2 MS	MS	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
10	#10 280-182443-E-2 MSD	MSD	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
11	#11 280-182435-I-2	Client	1.000	irectInjection	10.00	mL			
12	#12 280-182437-B-2	Client	1.000	irectInjection	10.00	mL			
13	#13 280-182443-E-4	Client	1.000	irectInjection	10.00	mL			
14	#14 280-182435-I-4	Client	1.000	irectInjection	10.00	mL			
15	#15 280-182431-B-1	Client	1.000	irectInjection	10.00	mL			
16	#16 280-182434-B-6	Client	1.000	irectInjection	10.00	mL			
17	#17 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
18	#18 ccb	CCB	1.000	irectInjection	10.00	mL			
19	#19 280-182437-B-3	Client	1.000	irectInjection	10.00	mL			
20	#20 280-182441-F-1	Client	1.000	irectInjection	10.00	mL			
21	#21 280-182441-F-2	Client	1.000	irectInjection	10.00	mL			
22	#22 280-182441-F-3	Client	2.000	irectInjection	10.00	mL			
23	#23 280-182441-F-4	Client	2.000	irectInjection	10.00	mL			
24	#24 280-182434-A-2	Client	2.000	irectInjection	10.00	mL			
25	#25 280-182441-F-5	Client	2.000	irectInjection	10.00	mL			
26	#26 280-182432-F-1	Client	1.000	irectInjection	10.00	mL			
27	#27 280-182441-F-6	Client	2.000	irectInjection	10.00	mL			
28	#28 280-182441-F-6 DU	DU	2.000	irectInjection	10.00	mL			
29	#29 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
30	#30 ccb	CCB	1.000	irectInjection	10.00	mL			
31	#31 280-182441-F-6 MS	MS	2.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
32	#32 280-182441-F-6 MSD	MSD	2.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
33	#33 280-182441-F-7	Client	2.000	irectInjection	10.00	mL			
34	#34 280-182441-F-9	Client	2.000	irectInjection	10.00	mL			
35	#35 280-182434-B-5	Client	1.000	irectInjection	10.00	mL			
36	#36 280-182435-I-6	Client	1.000	irectInjection	10.00	mL			
37	#37 lcs	LCS	1.000	irectInjection	10.00	mL	IC LCS_01981		
38	#38 lcsd	LCSD	1.000	irectInjection	10.00	mL	IC LCS_01981		
39	#39 mb	MB	1.000	irectInjection	10.00	mL			
40	#40 280-182441-F-8	Client	1.000	irectInjection	10.00	mL			
41	#41 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
42	#42 ccb	CCB	1.000	irectInjection	10.00	mL			
43	#43 280-182441-F-8 DU	DU	1.000	irectInjection	10.00	mL			
44	#44 280-182441-F-8 MS	MS	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
45	#45 280-182441-F-8 MSD	MSD	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
46	#46 280-182437-B-1	Client	1.000	irectInjection	10.00	mL			
47	#47 280-182443-E-7	Client	1.000	irectInjection	10.00	mL			
48	#48 280-182434-A-3	Client	1.000	irectInjection	10.00	mL			
49	#49 280-182431-A-2	Client	1.000	irectInjection	10.00	mL			
50	#50 280-182436-A-3	Client	1.000	irectInjection	10.00	mL			
51	#51 280-182443-E-8	Client	1.000	irectInjection	10.00	mL			
52	#52 280-182434-B-4	Client	1.000	irectInjection	10.00	mL			
53	#53 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
54	#54 ccb	CCB	1.000	irectInjection	10.00	mL			
55	#55 280-182431-B-3	Client	1.000	irectInjection	10.00	mL			
56	#56 280-182436-A-5	Client	1.000	irectInjection	10.00	mL			
57	#57 280-182438-D-2	Client	1.000	irectInjection	10.00	mL			
58	#58 280-182438-D-3	Client	1.000	irectInjection	10.00	mL			
59	#59 280-182438-D-4	Client	1.000	irectInjection	10.00	mL			
60	#60 280-182438-D-4 DU	DU	1.000	irectInjection	10.00	mL			
61	#61 280-182438-D-4 MS	MS	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
62	#62 280-182438-D-4 MSD	MSD	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		

Smp #	Lims ID	Smp Type	Dil Fact	Fract	Initial Vol/Wt	Vol/Wt Units	Sample Reagents	pH	Comment
63	#63 280-182438-D-5	Client	1.000	irectInjection	10.00	mL			
64	#64 280-182438-E-6	Client	1.000	irectInjection	10.00	mL			
65	#65 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
66	#66 ccb	CCB	1.000	irectInjection	10.00	mL			

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-Aug-2023 11:15:05
No.Compounds:7
Sublist: chrom-Anions_IC10*sub9
Limit Group: Wet - Anions

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:23:00 Worklist: 124540 Sample#: 1
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:38:00 Worklist: 124540 Sample#: 2
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:54:00 Worklist: 124540 Sample#: 3
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:09:00 Worklist: 124540 Sample#: 4
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:24:00 Worklist: 124540 Sample#: 5
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:39:00 Worklist: 124540 Sample#: 6

Start Cal Date: 16-Aug-2023 08:23:00 End Cal Date: 16-Aug-2023 09:39:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
47471195	51179524	53593060	54652809	52854220	51903959	-659672			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		52874248		
9494239	25589762	53593060	218611235	422833757	519039593				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
5 Nitrate as N				Signal: 1					
44046915	44259096	44959242	48028628	49046239	49379609	-1793758			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		49153639		
8809383	22129548	44959242	192114513	392369909	493796088				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
6 Orthophosphate as P				Signal: 1					
101865985	61427992	42106377	29713426	27079645	25967913	16373185			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		24899766		
M20373197	M30713996	M42106377	M118853705	216637163	259679126				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-Aug-2023 11:15:05
No.Compounds:7
Sublist: chrom-Anions_IC10*sub9
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:23:00 Worklist: 124540 Sample#: 1
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:38:00 Worklist: 124540 Sample#: 2
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:54:00 Worklist: 124540 Sample#: 3
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:09:00 Worklist: 124540 Sample#: 4
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:24:00 Worklist: 124540 Sample#: 5
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:39:00 Worklist: 124540 Sample#: 6

Start Cal Date: 16-Aug-2023 08:23:00 End Cal Date: 16-Aug-2023 09:39:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride				Signal: 1					
32469200	37215236	40803610	42864993	41326689	41186188	-1753153			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		41787315		
M6493840	M18607618	M40803610	M171459973	M330613515	M411861883				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
2 Chloride				Signal: 1					
16343527	17656926	18478080	19312060	19322788	19296788	-3421991			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		19331335		
16343527	44142315	92390398	1158723576	2318734502	3859357572				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
4 Bromide				Signal: 1					
11065780	8675128	7960626	8036663	8307849	8416941	361716			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		8232908		
2213156	4337564	7960626	32146652	66462794	84169414				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
7 Sulfate				Signal: 1					
16127136	13095082	12454383	14328878	14645101	14548658	-1219203			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		14531090		
M16127136	M32737705	M62271915	M859732703	1757412080	2909731694				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				

Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 16-Aug-2023 10:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-008
Misc. Info.: 280-0124540-008
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 11:15:05 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10(

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 17-Aug-2023 11:27:01

Start Cal Date: 16-Aug-2023 08:23:00
End Cal Date: 16-Aug-2023 09:39:00

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
1 Fluoride	4.00	3.60	*-10.0	10.0	90.0	
2 Chloride	80.0	84.0	5.0	10.0	105.0	
4 Bromide	4.00	3.88	-3.1	10.0	96.9	
7 Sulfate	80.0	81.1	1.3	10.0	101.3	

Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 16-Aug-2023 10:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-008
Misc. Info.: 280-0124540-008
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 17-Aug-2023 11:27:17 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10(

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 17-Aug-2023 11:27:17

Start Cal Date: 16-Aug-2023 08:23:00
End Cal Date: 16-Aug-2023 09:39:00

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
3 Nitrite as N	4.00	4.14	3.5	10.0	103.5	
5 Nitrate as N	4.00	3.95	-1.2	10.0	98.8	
6 Orthophosphate as	4.00	4.21	5.3	10.0	105.3	

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 05-Oct-2023 12:40:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-001
Misc. Info.: 280-0126193-001
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:07:17 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.227	4.230	-0.003	1905855682	NC	NC	
3 Nitrite as N	4.857	4.857	0.000	259552386	5.00	4.92	
4 Bromide	5.987	5.993	-0.006	39567672	NC	NC	
5 Nitrate as N	6.712	6.715	-0.003	231897441	5.00	4.75	
6 Orthophosphate as P	8.482	8.493	-0.011	170996115	5.00	6.21	
7 Sulfate	9.518	9.533	-0.015	1457346321	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

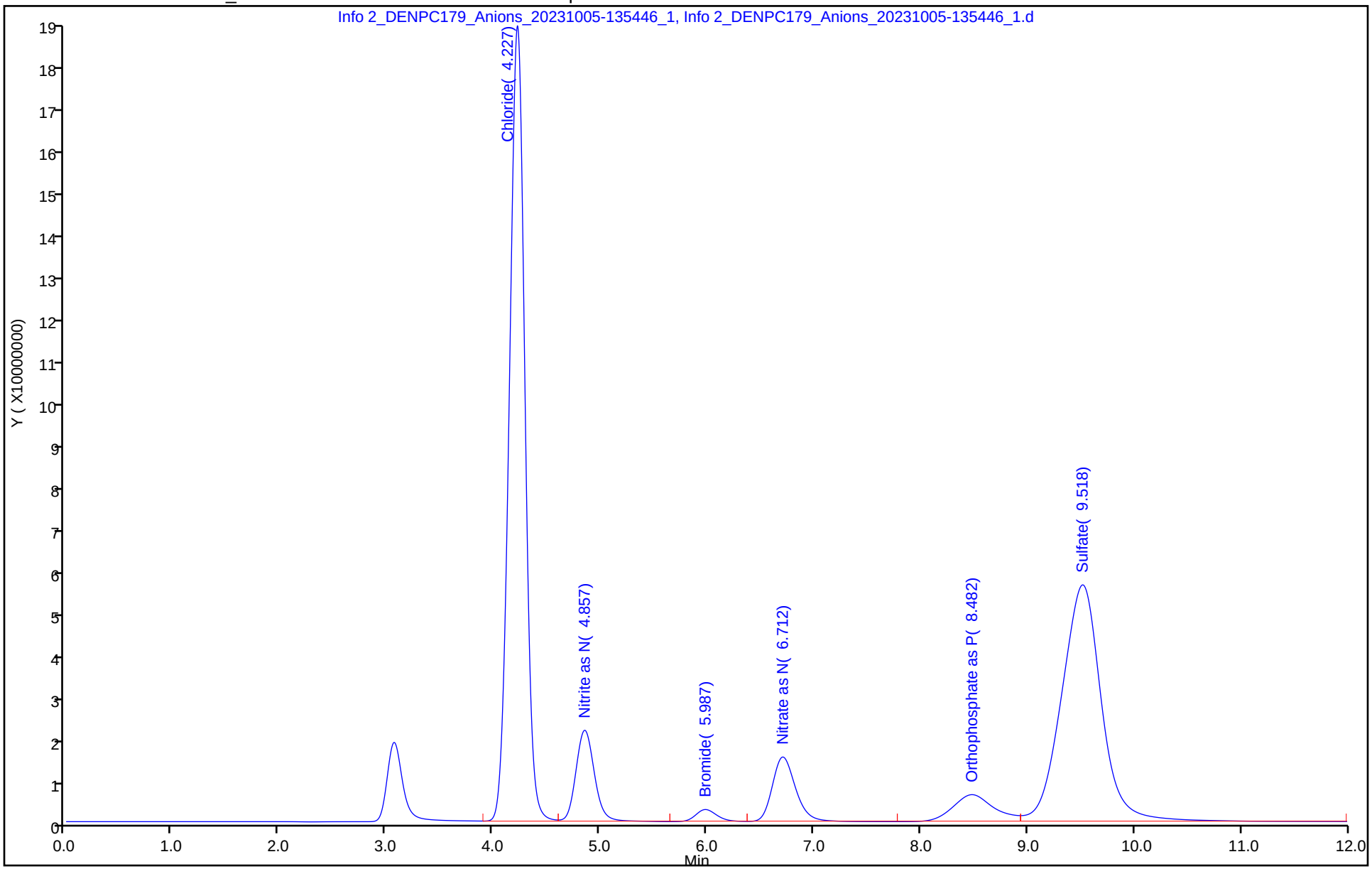
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:07:17 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135446_1.d				
Injection Date:	05-Oct-2023 12:40:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	05-Oct-2023 12:55:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-002				
Misc. Info.:	280-0126193-002				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions				
Last Update:	06-Oct-2023 12:05:39	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.165	4.230	-0.065	25567		NC	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.582	8.493	0.089	16302204		-0.002851	
7 Sulfate	9.642	9.533	0.109	11722981		NC	

QC Flag Legend

Processing Flags

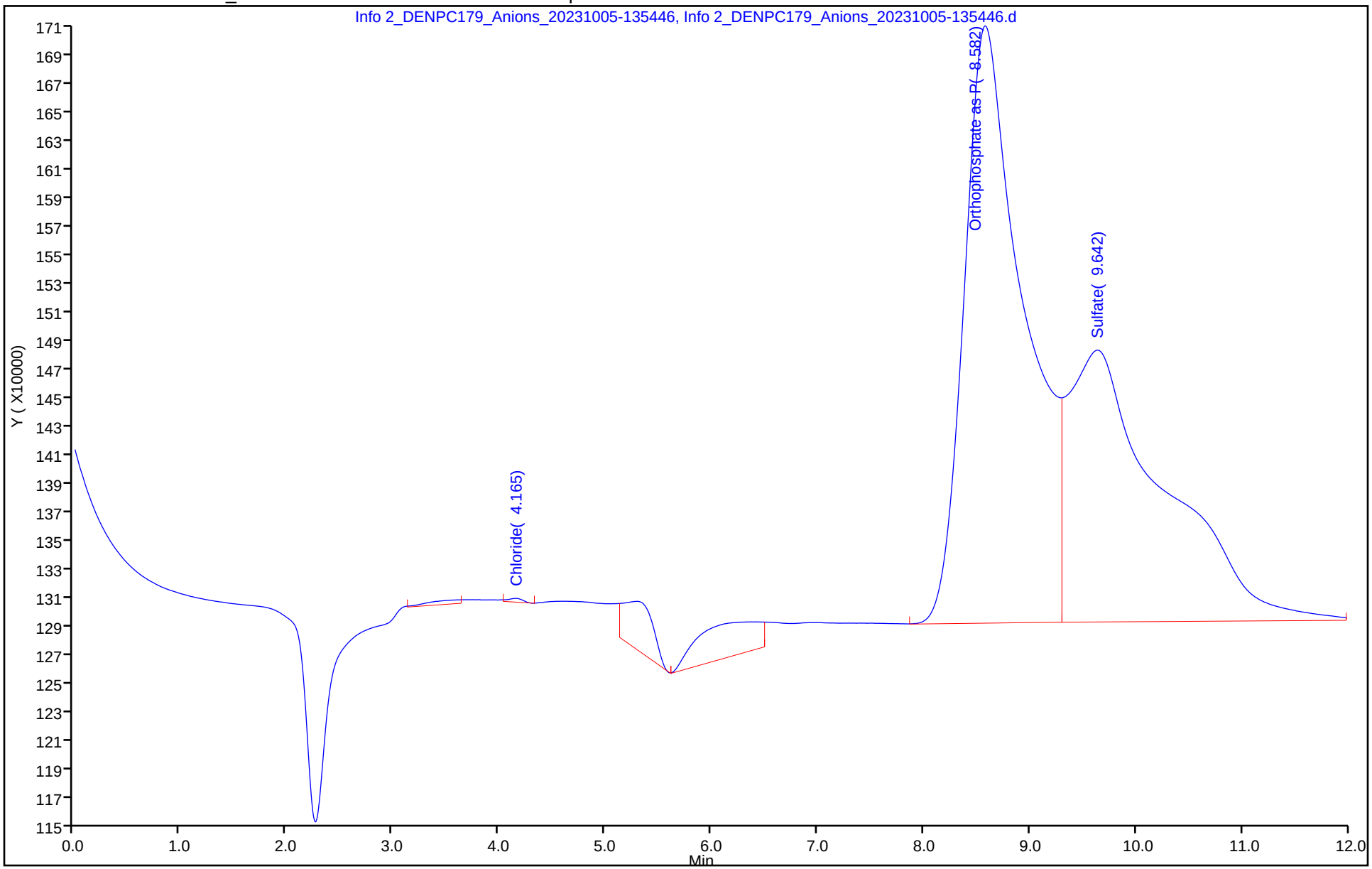
NC - Not Calibrated

Report Date: 06-Oct-2023 12:05:40 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135446.d

Injection Date:	05-Oct-2023 12:55:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135
Lims ID: mrl
Client ID:
Sample Type: MRL
Inject. Date: 05-Oct-2023 13:10:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-003
Misc. Info.: 280-0126193-003
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:07:17 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.188	4.230	-0.042	93302890	NC	NC	
3 Nitrite as N	4.865	4.857	0.008	25643782	0.5000	0.4975	
4 Bromide	6.027	5.993	0.034	4624847	NC	NC	
5 Nitrate as N	6.772	6.715	0.057	22536002	0.5000	0.4950	
6 Orthophosphate as P	8.537	8.493	0.044	46216150	0.5000	1.20	
7 Sulfate	9.553	9.533	0.020	93101511	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

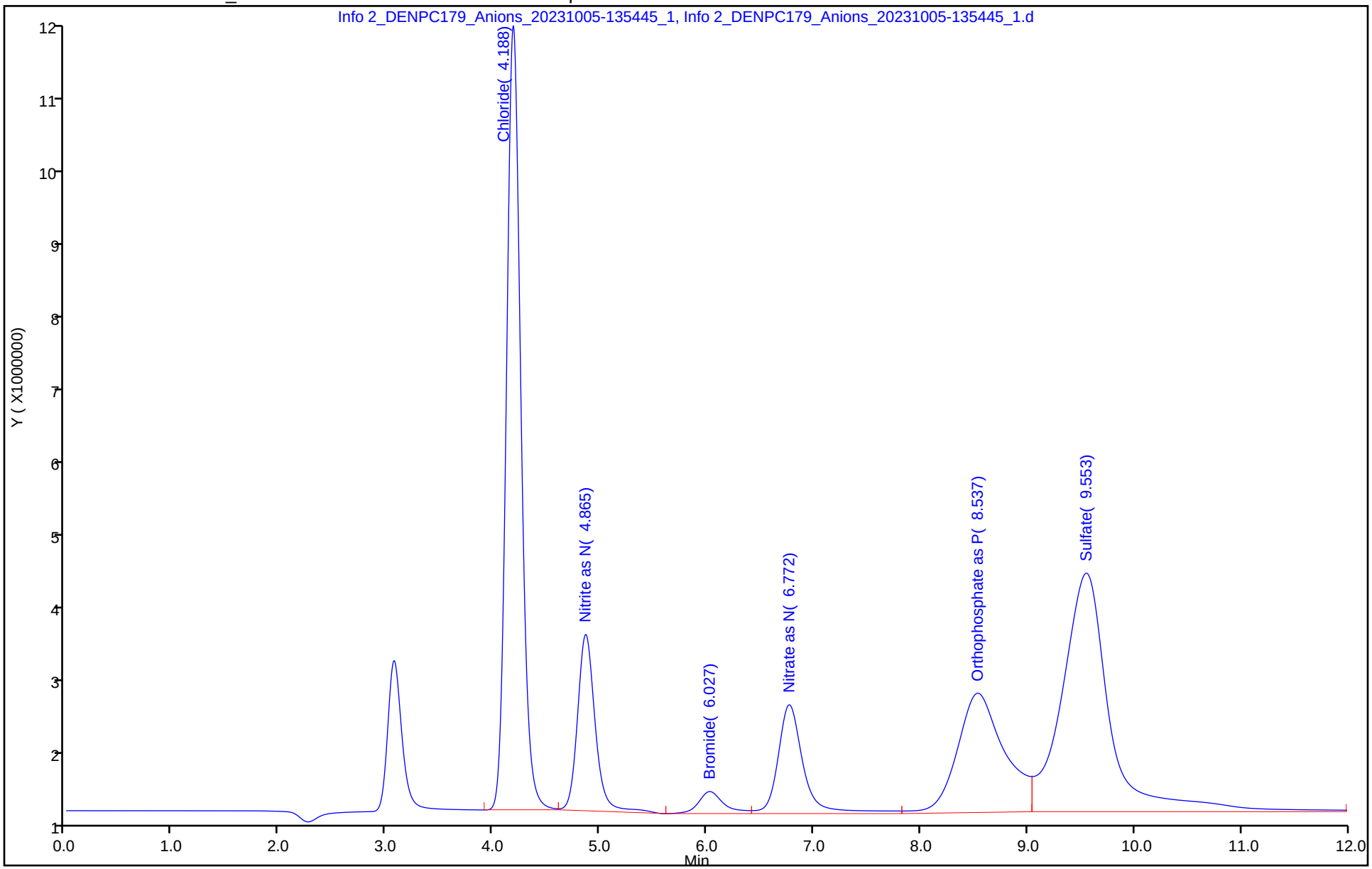
Reagents:

IC Cal low_00732 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00502 Amount Added: 0.20 Units: mL

Report Date: 06-Oct-2023 12:07:18 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135445_1.d				
Injection Date:	05-Oct-2023 13:10:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	mrl			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 05-Oct-2023 13:25:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-004
Misc. Info.: 280-0126193-004
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:05:39 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.228	4.230	-0.002	1900171604	NC	NC	
3 Nitrite as N	4.857	4.857	0.000	260272210	5.00	4.93	
4 Bromide	5.993	5.993	0.000	39477069	NC	NC	
5 Nitrate as N	6.715	6.715	0.000	231242862	5.00	4.74	
6 Orthophosphate as P	8.490	8.493	-0.003	173584547	5.00	6.31	
7 Sulfate	9.528	9.533	-0.005	1453193635	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

Reagents:

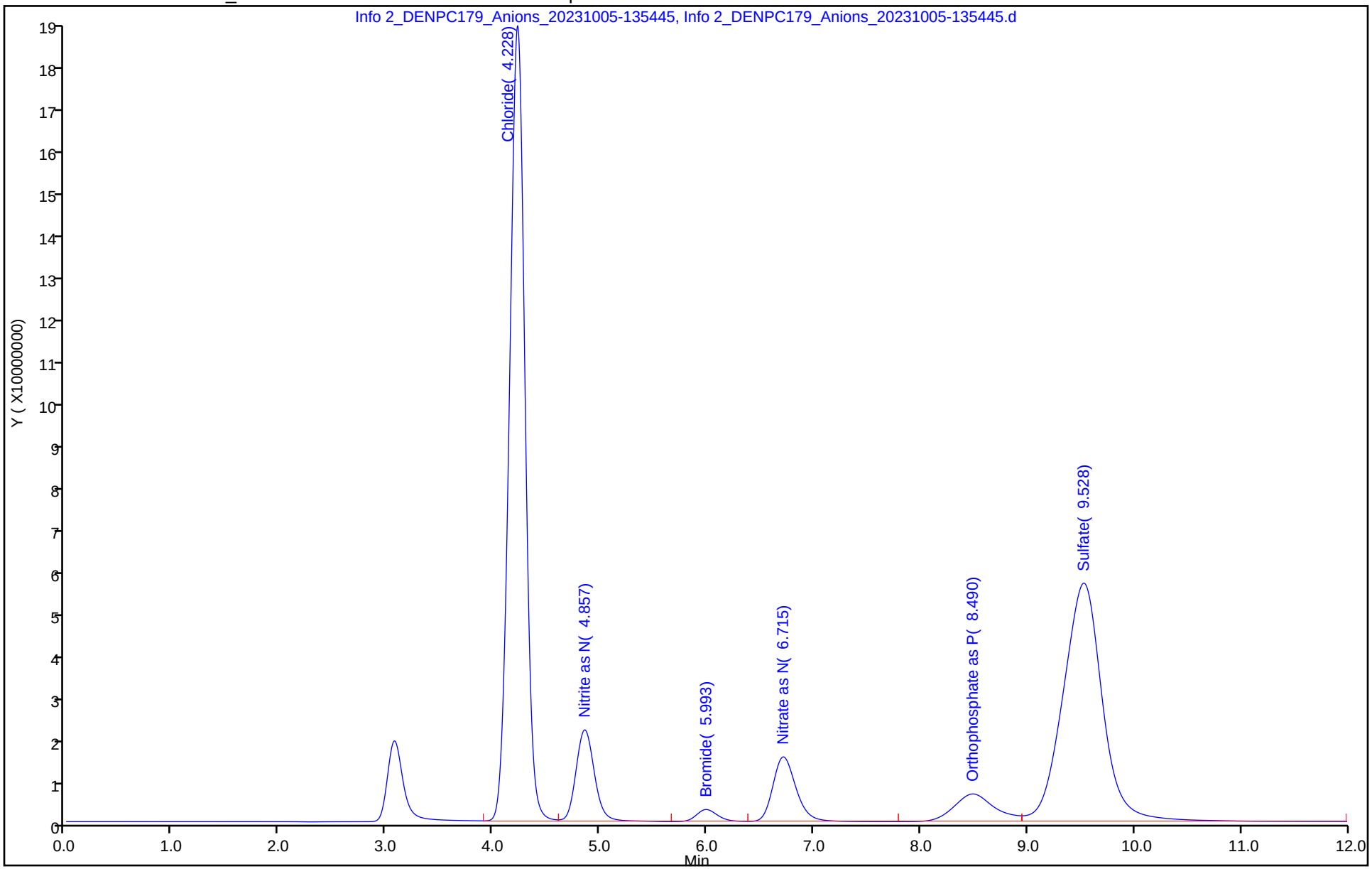
IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:05:41 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135445.d

Injection Date:	05-Oct-2023 13:25:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	lcs			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 05-Oct-2023 13:40:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-005
Misc. Info.: 280-0126193-005
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:07:19 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.230	4.230	0.000	1903181679	NC	NC	
3 Nitrite as N	4.857	4.857	0.000	260570116	5.00	4.94	
4 Bromide	5.993	5.993	0.000	39578393	NC	NC	
5 Nitrate as N	6.715	6.715	0.000	231632093	5.00	4.75	
6 Orthophosphate as P	8.493	8.493	0.000	173253280	5.00	6.30	
7 Sulfate	9.533	9.533	0.000	1455183810	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

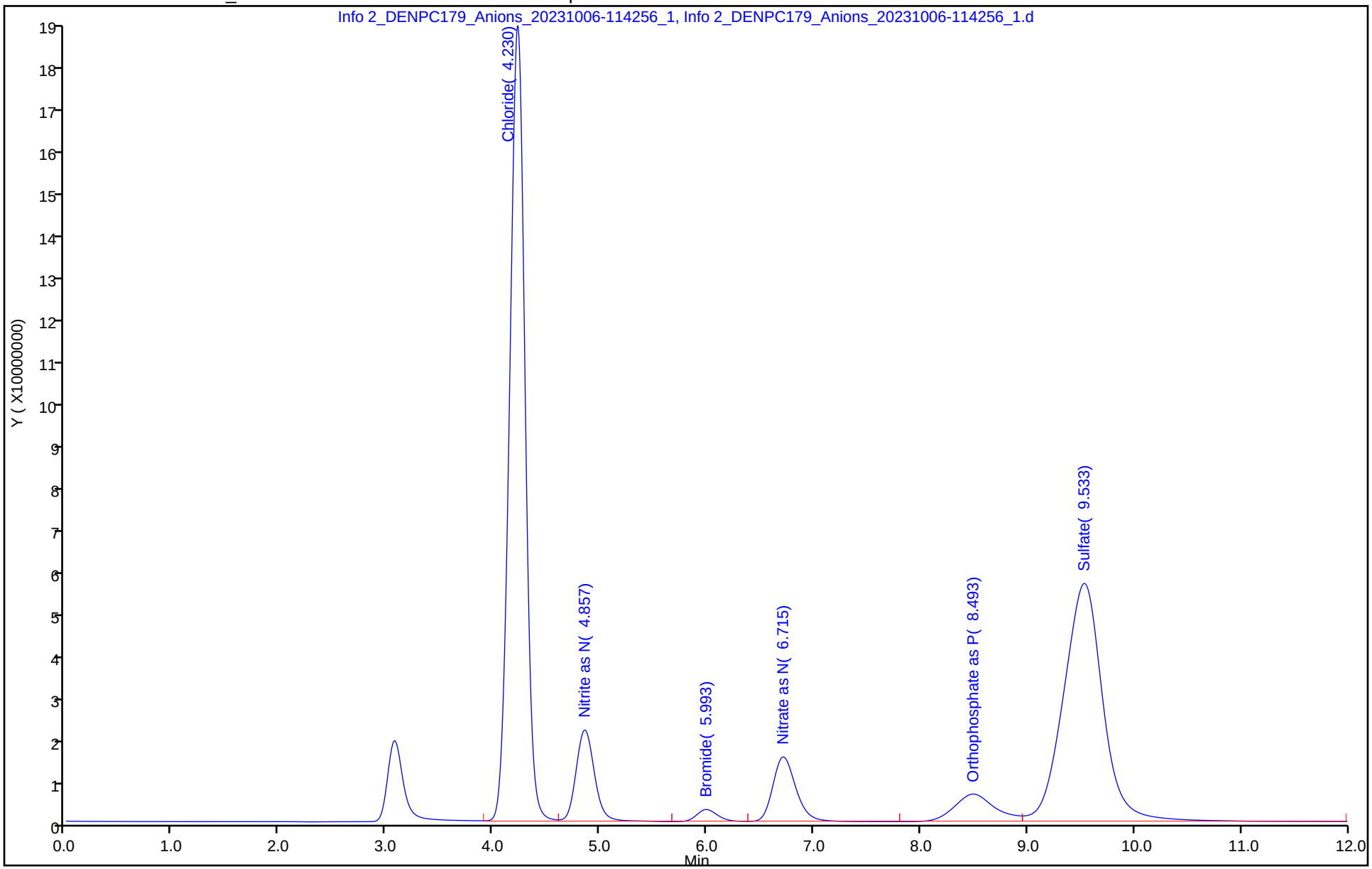
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:07:19 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114256_1.d				
Injection Date:	05-Oct-2023 13:40:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	lcsd			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	05-Oct-2023 13:55:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-006				
Misc. Info.:	280-0126193-006				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions				
Last Update:	06-Oct-2023 12:05:42	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.160	4.230	-0.070	36964		NC	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N	6.515	6.715	-0.200	1157654		0.0600	
6 Orthophosphate as P	8.580	8.493	0.087	20081198		0.1489	
7 Sulfate	9.645	9.533	0.112	12700665		NC	

QC Flag Legend

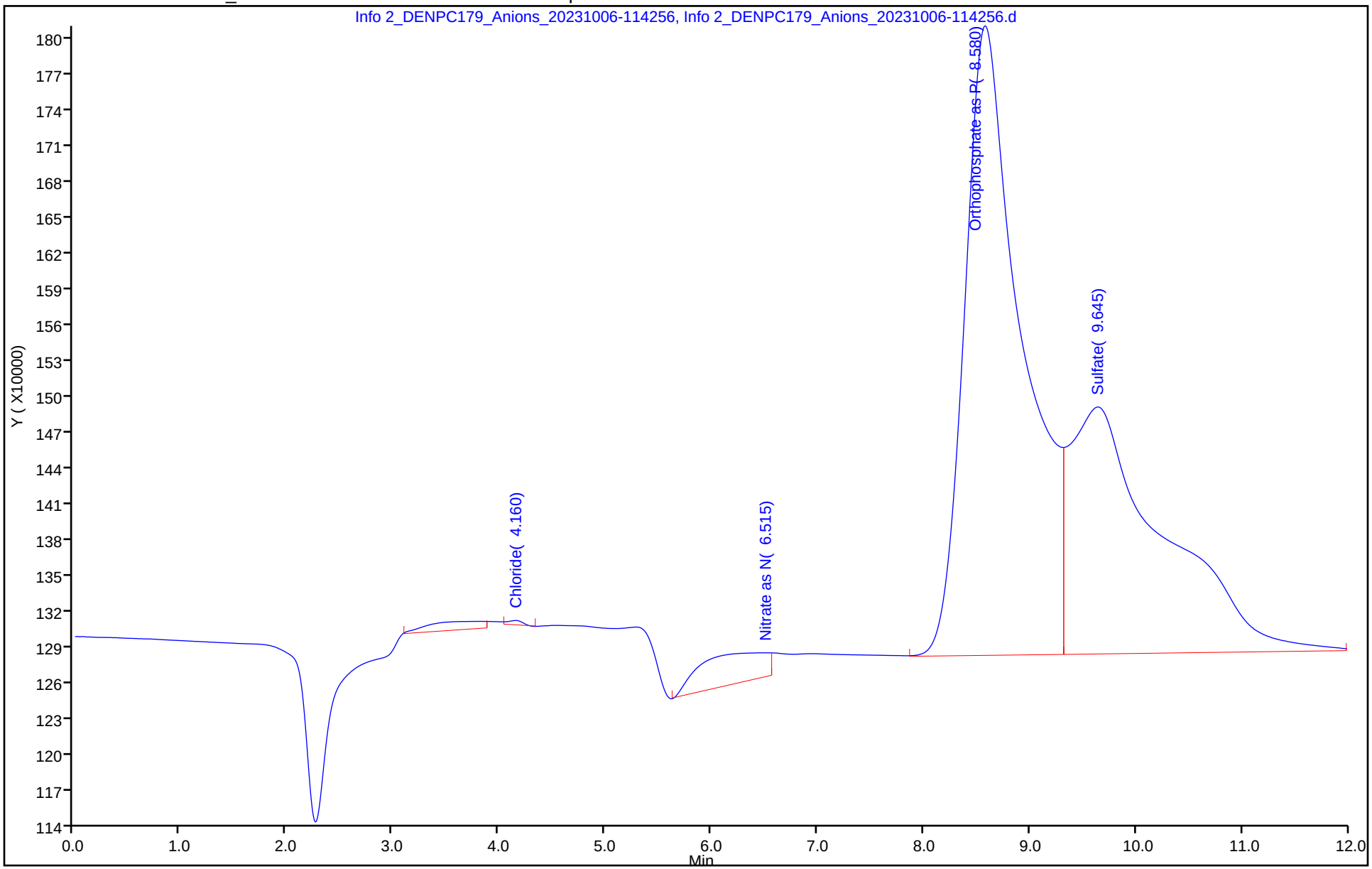
Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:05:42 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114256.d

Injection Date:	05-Oct-2023 13:55:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: 280-182443-E-2
Client ID: WBGmw-009-230901-GW
Sample Type: Client
Inject. Date: 05-Oct-2023 14:46:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-007
Misc. Info.: 280-0126193-007
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:07:19 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	
2 Chloride	4.188	4.230	-0.042	25235537	NC	
3 Nitrite as N		4.857			ND	
4 Bromide	6.195	5.993	0.202	3179220	NC	
5 Nitrate as N	6.907	6.715	0.192	2674453	0.0909	
6 Orthophosphate as P	8.720	8.493	0.227	7438957	-0.3588	
7 Sulfate	9.625	9.533	0.092	320043143	NC	

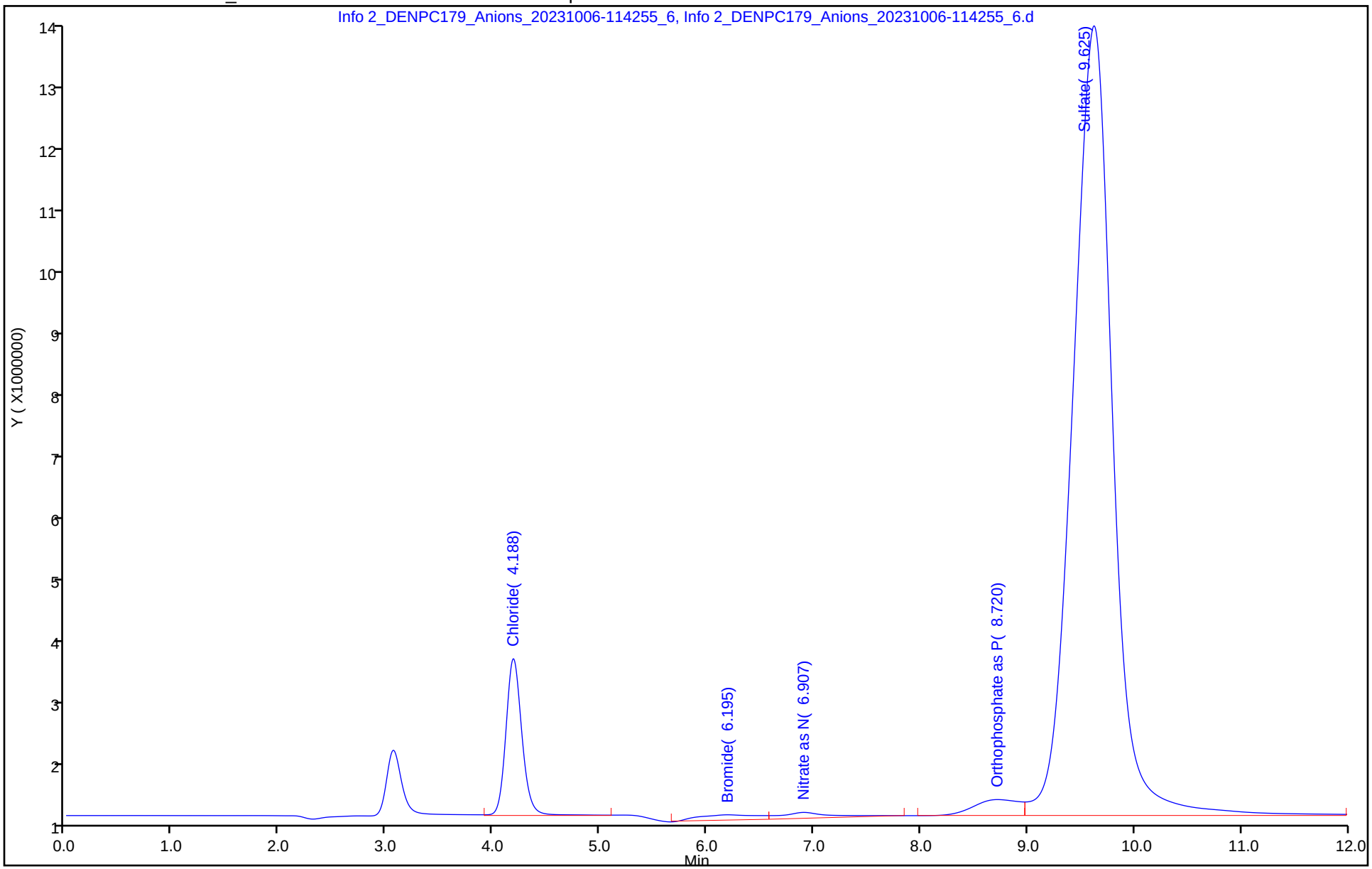
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:07:22 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114255_6.d				
Injection Date:	05-Oct-2023 14:46:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-2	Lab Sample ID:	280-182443-2	Worklist Smp#:	7
Client ID:	WBGmw-009-230901-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	280-182443-E-2 DU				
Client ID:					
Sample Type:	DU				
Inject. Date:	05-Oct-2023 15:01:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-008				
Misc. Info.:	280-0126193-008				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions				
Last Update:	06-Oct-2023 12:07:19	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.192	4.230	-0.038	25146299		NC	
3 Nitrite as N		4.857				ND	
4 Bromide	6.190	5.993	0.197	3301728		NC	
5 Nitrate as N	6.908	6.715	0.193	2378780		0.0849	
6 Orthophosphate as P	8.775	8.493	0.282	3458481		-0.5187	
7 Sulfate	9.630	9.533	0.097	314943018		NC	

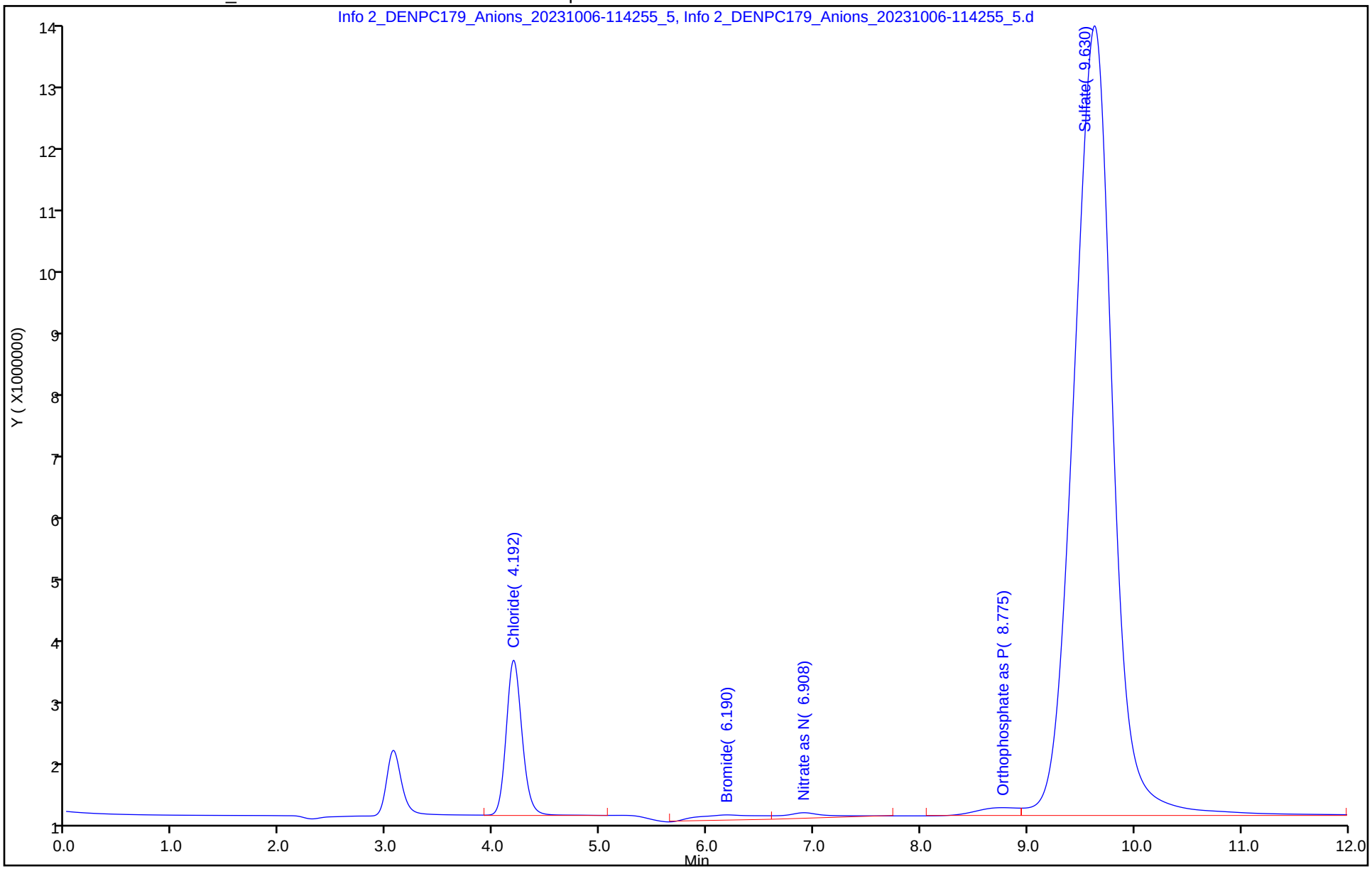
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:07:22 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114255_5.d				
Injection Date:	05-Oct-2023 15:01:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-2 DU			Worklist Smp#:	8
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: 280-182443-E-2 MS
Client ID:
Sample Type: MS
Inject. Date: 05-Oct-2023 15:16:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-009
Misc. Info.: 280-0126193-009
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:07:19 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.198	4.230	-0.032	1064858217	NC	NC	
3 Nitrite as N	4.865	4.857	0.008	228262888	5.00	4.33	
4 Bromide	6.138	5.993	0.145	40201468	NC	NC	
5 Nitrate as N	6.807	6.715	0.092	252763288	5.00	5.18	
6 Orthophosphate as P	8.597	8.493	0.104	184581007	5.00	6.76	
7 Sulfate	9.607	9.533	0.074	1168911785	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

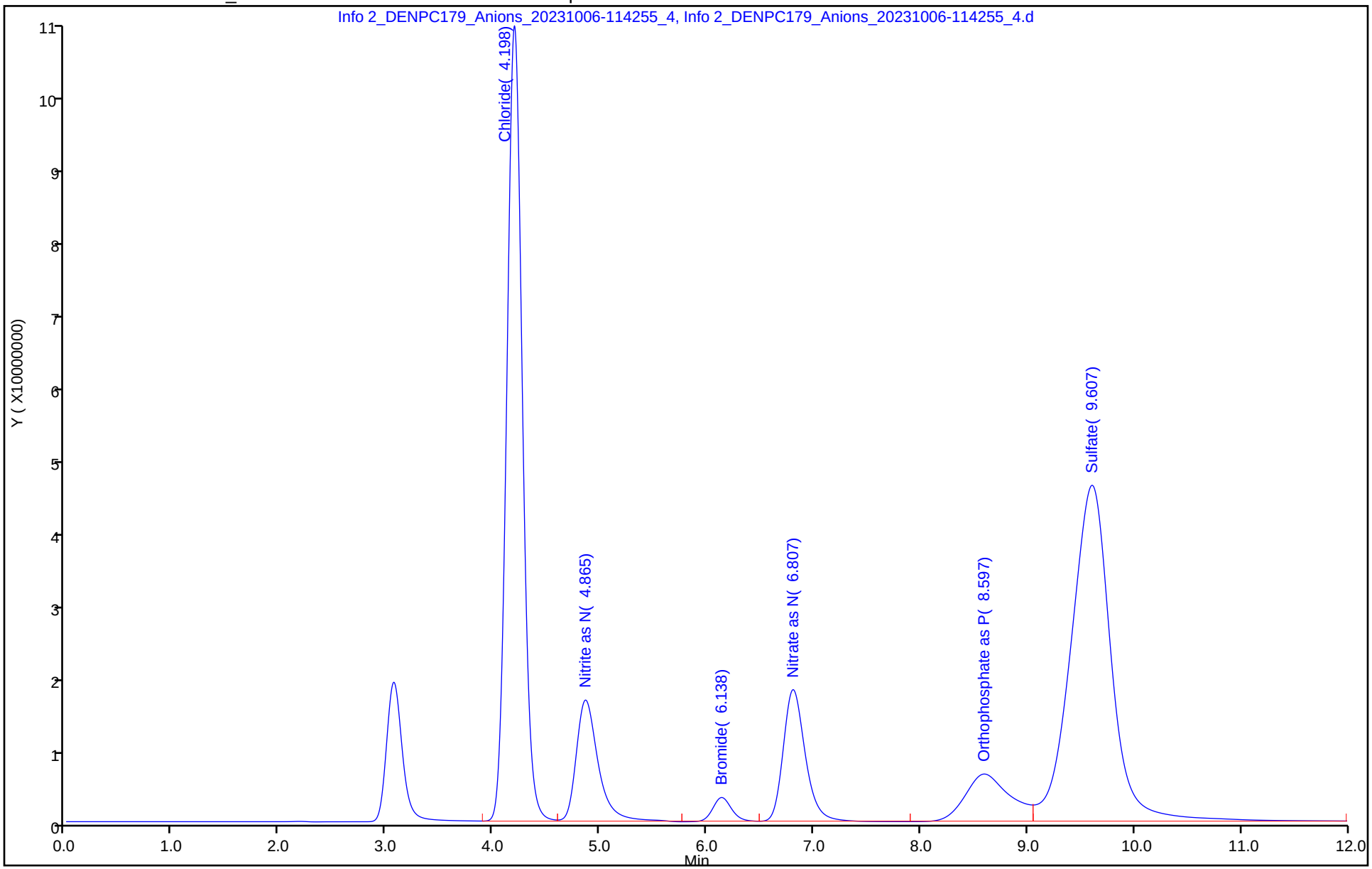
Reagents:

ICMS/MSD WEEK_00839 Amount Added: 0.10 Units: mL

Report Date: 06-Oct-2023 12:07:23 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114255_4.d				
Injection Date:	05-Oct-2023 15:16:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-2 MS			Worklist Smp#:	9
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: 280-182443-E-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 05-Oct-2023 15:31:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-010
Misc. Info.: 280-0126193-010
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:07:19 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.202	4.230	-0.028	1086899531	NC	NC	
3 Nitrite as N	4.868	4.857	0.011	233322444	5.00	4.43	
4 Bromide	6.140	5.993	0.147	40970328	NC	NC	
5 Nitrate as N	6.810	6.715	0.095	257936215	5.00	5.28	
6 Orthophosphate as P	8.602	8.493	0.109	187989018	5.00	6.89	
7 Sulfate	9.613	9.533	0.080	1188643838	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

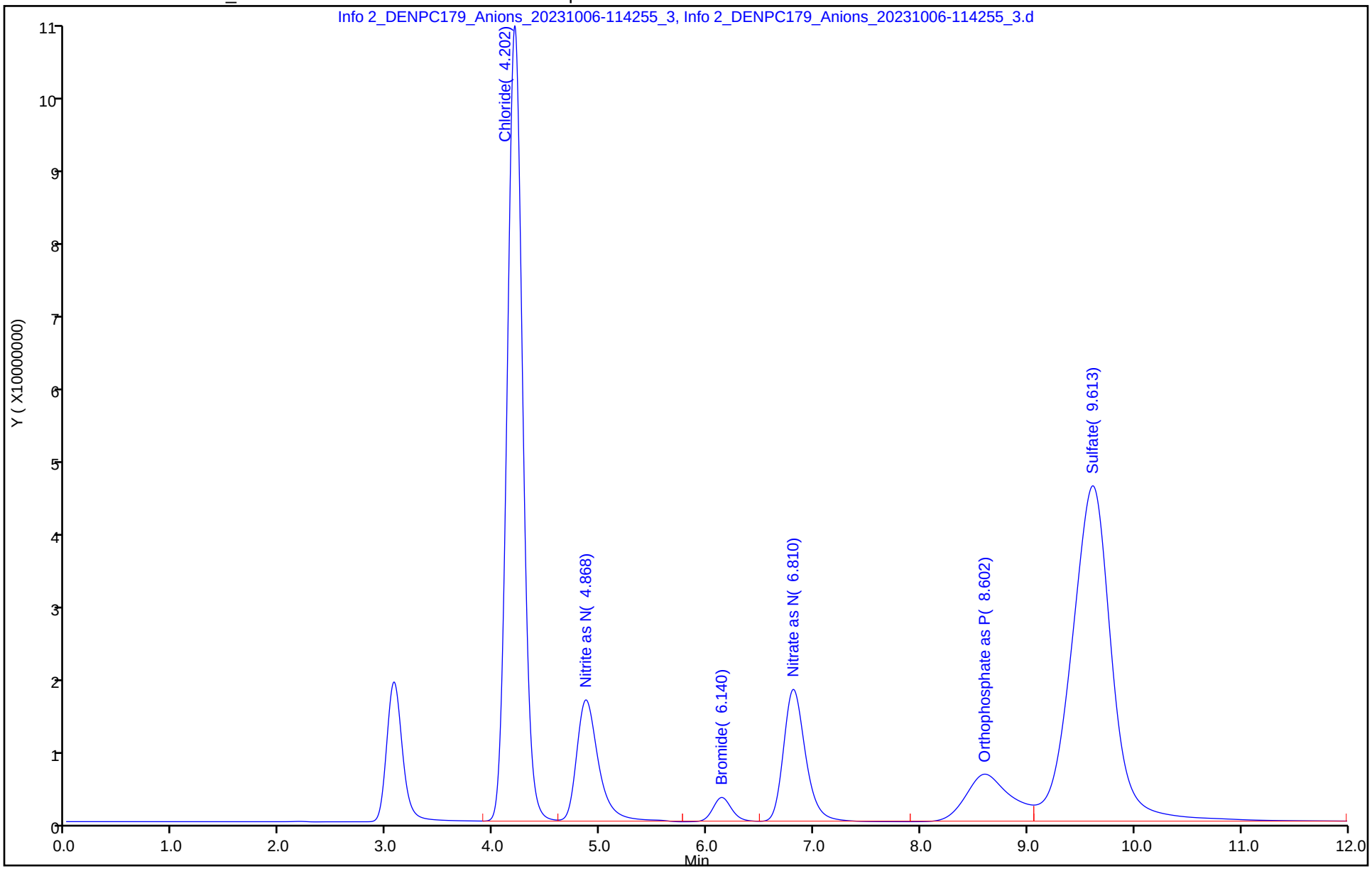
Reagents:

ICMS/MSD WEEK_00839 Amount Added: 0.10 Units: mL

Report Date: 06-Oct-2023 12:07:24 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114255_3.d				
Injection Date:	05-Oct-2023 15:31:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-2 MSD			Worklist Smp#:	10
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	280-182443-E-4				
Client ID:	WBGmw-006-230901-GW				
Sample Type:	Client				
Inject. Date:	05-Oct-2023 16:16:00	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-013				
Misc. Info.:	280-0126193-013				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions				
Last Update:	06-Oct-2023 12:05:42	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	
2 Chloride	4.190	4.230	-0.040	14239078	NC	
3 Nitrite as N		4.857			ND	
4 Bromide	6.160	5.993	0.167	3534997	NC	
5 Nitrate as N		6.715			ND	
6 Orthophosphate as P	8.753	8.493	0.260	4036404	-0.4955	
7 Sulfate	9.613	9.533	0.080	386896753	NC	

QC Flag Legend

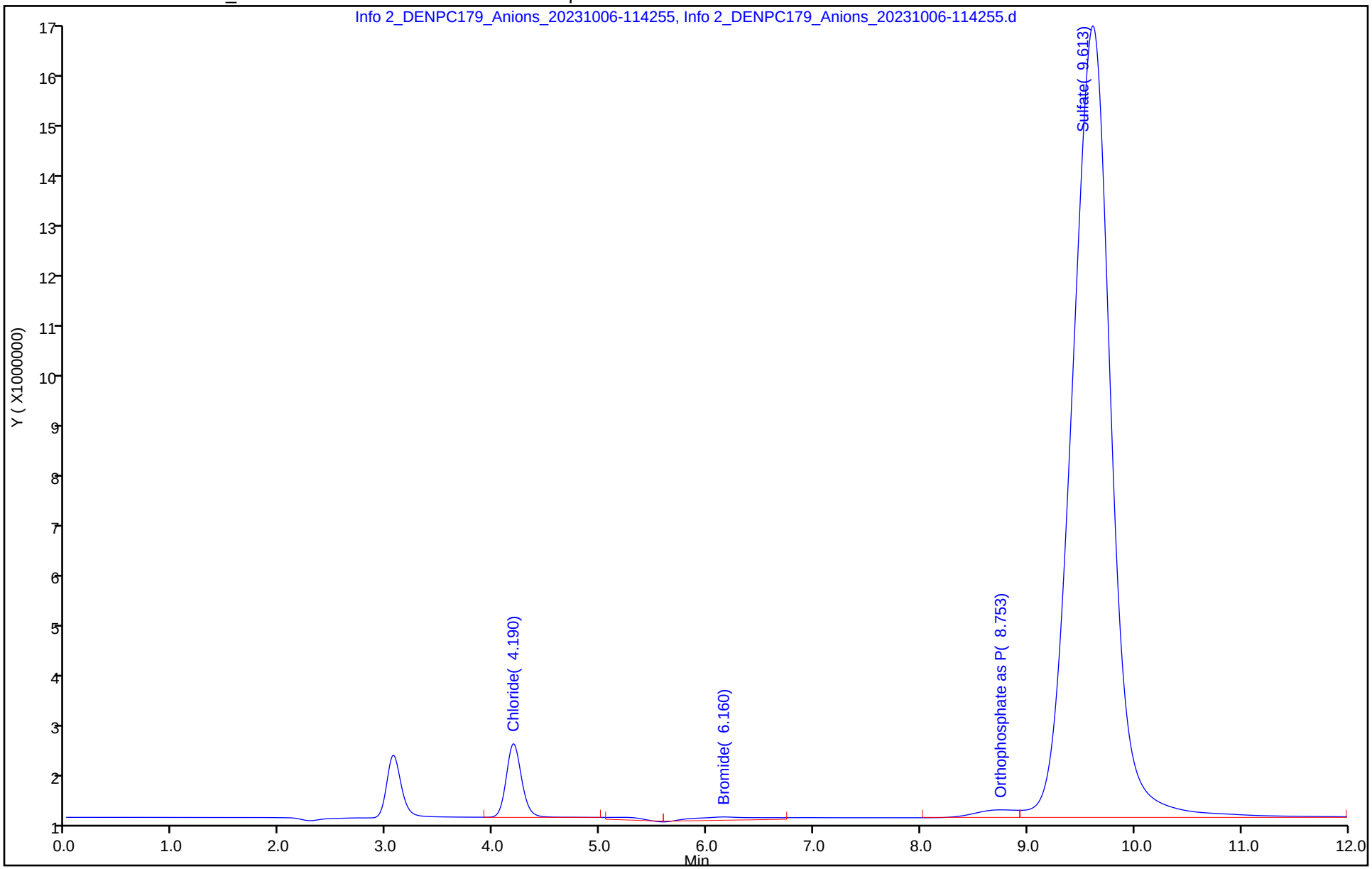
Processing Flags

NC - Not Calibrated

Report Date: 06-Oct-2023 12:05:47 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114255.d				
Injection Date:	05-Oct-2023 16:16:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-4	Lab Sample ID:	280-182443-4	Worklist Smp#:	13
Client ID:	WBGmw-006-230901-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 05-Oct-2023 17:16:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-017
Misc. Info.: 280-0126193-017
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:07:30 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.230	4.230	0.000	1888812308	NC	NC	
3 Nitrite as N	4.858	4.857	0.001	263951916	5.00	5.00	
4 Bromide	5.978	5.993	-0.015	38908461	NC	NC	
5 Nitrate as N	6.703	6.715	-0.012	228540159	5.00	4.69	
6 Orthophosphate as P	8.497	8.493	0.004	165587211	5.00	5.99	
7 Sulfate	9.537	9.533	0.004	1441085766	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

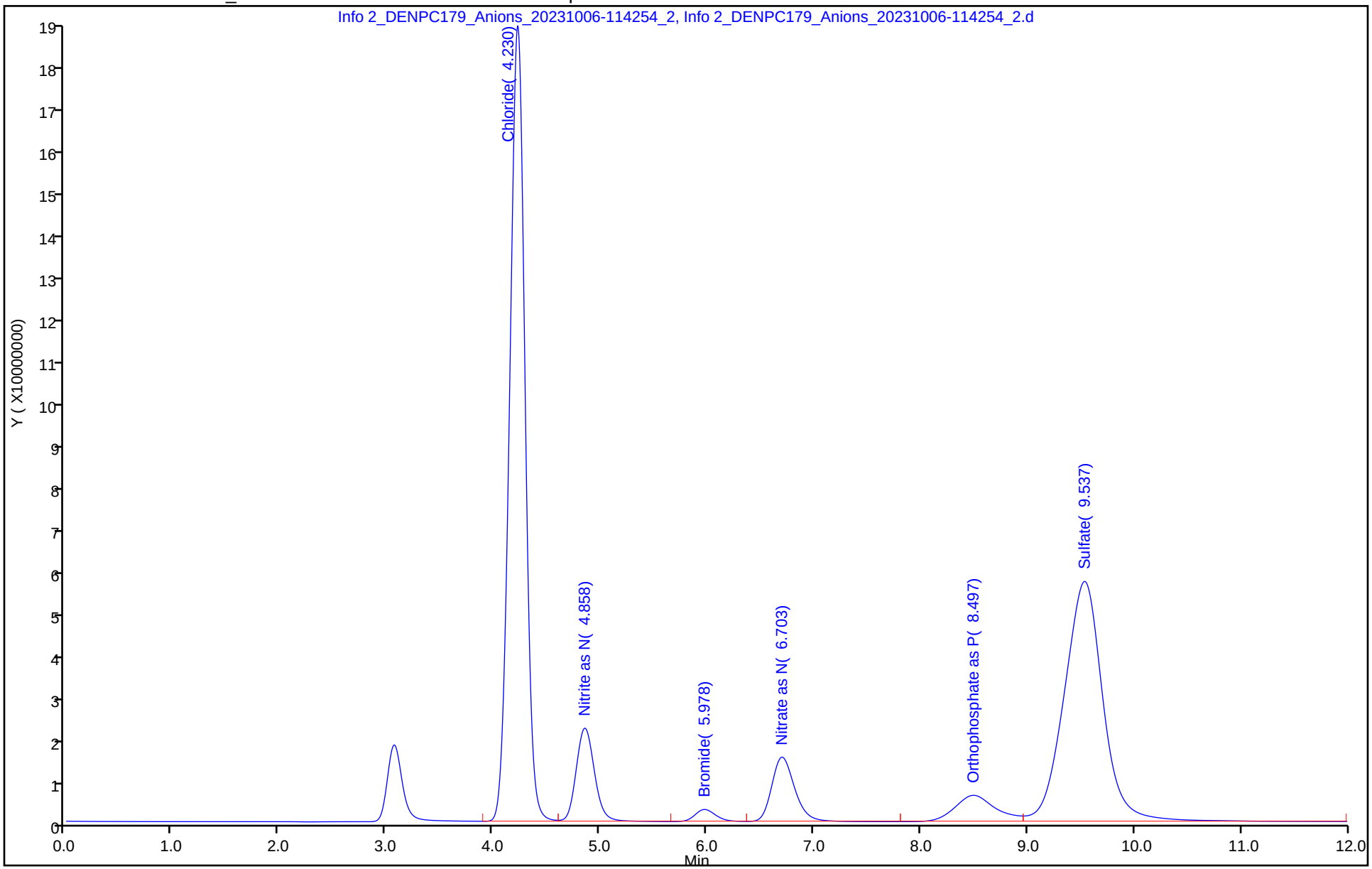
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:07:30 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114254_2.d				
Injection Date:	05-Oct-2023 17:16:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	05-Oct-2023 17:31:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-018				
Misc. Info.:	280-0126193-018				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions				
Last Update:	06-Oct-2023 12:07:30	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.165	4.230	-0.065	26641		NC	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.588	8.493	0.095	12947381		-0.1376	
7 Sulfate	9.648	9.533	0.115	10250932		NC	

QC Flag Legend

Processing Flags

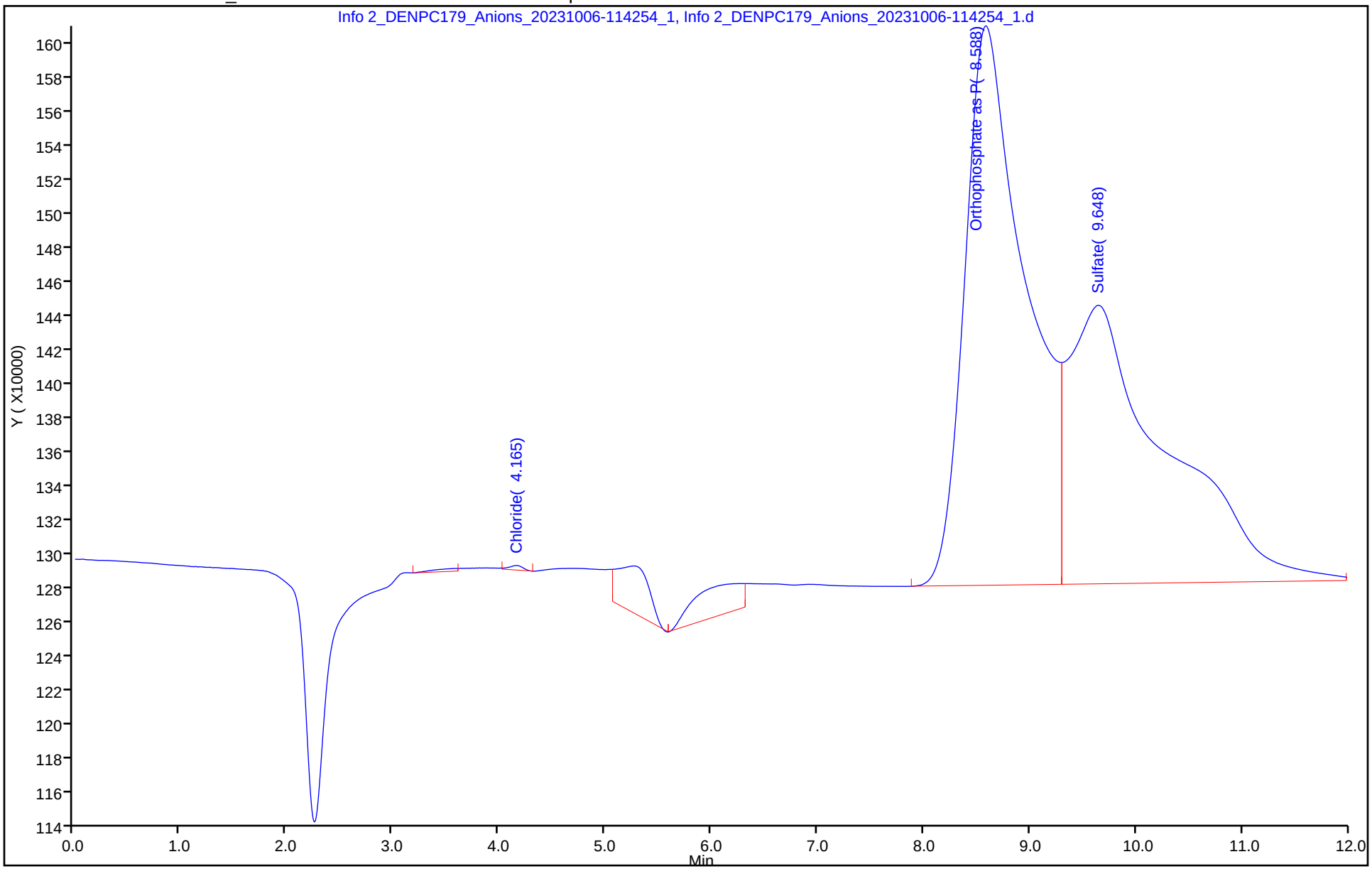
NC - Not Calibrated

Report Date: 06-Oct-2023 12:07:31 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114254_1.d

Injection Date:	05-Oct-2023 17:31:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 05-Oct-2023 20:17:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-029
Misc. Info.: 280-0126193-029
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:07:43 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.228	4.230	-0.002	1897858435	NC	NC	
3 Nitrite as N	4.857	4.857	0.000	265668312	5.00	5.04	
4 Bromide	5.980	5.993	-0.013	39221394	NC	NC	
5 Nitrate as N	6.707	6.715	-0.008	229477714	5.00	4.71	
6 Orthophosphate as P	8.485	8.493	-0.008	164351932	5.00	5.94	
7 Sulfate	9.530	9.533	-0.003	1443172652	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

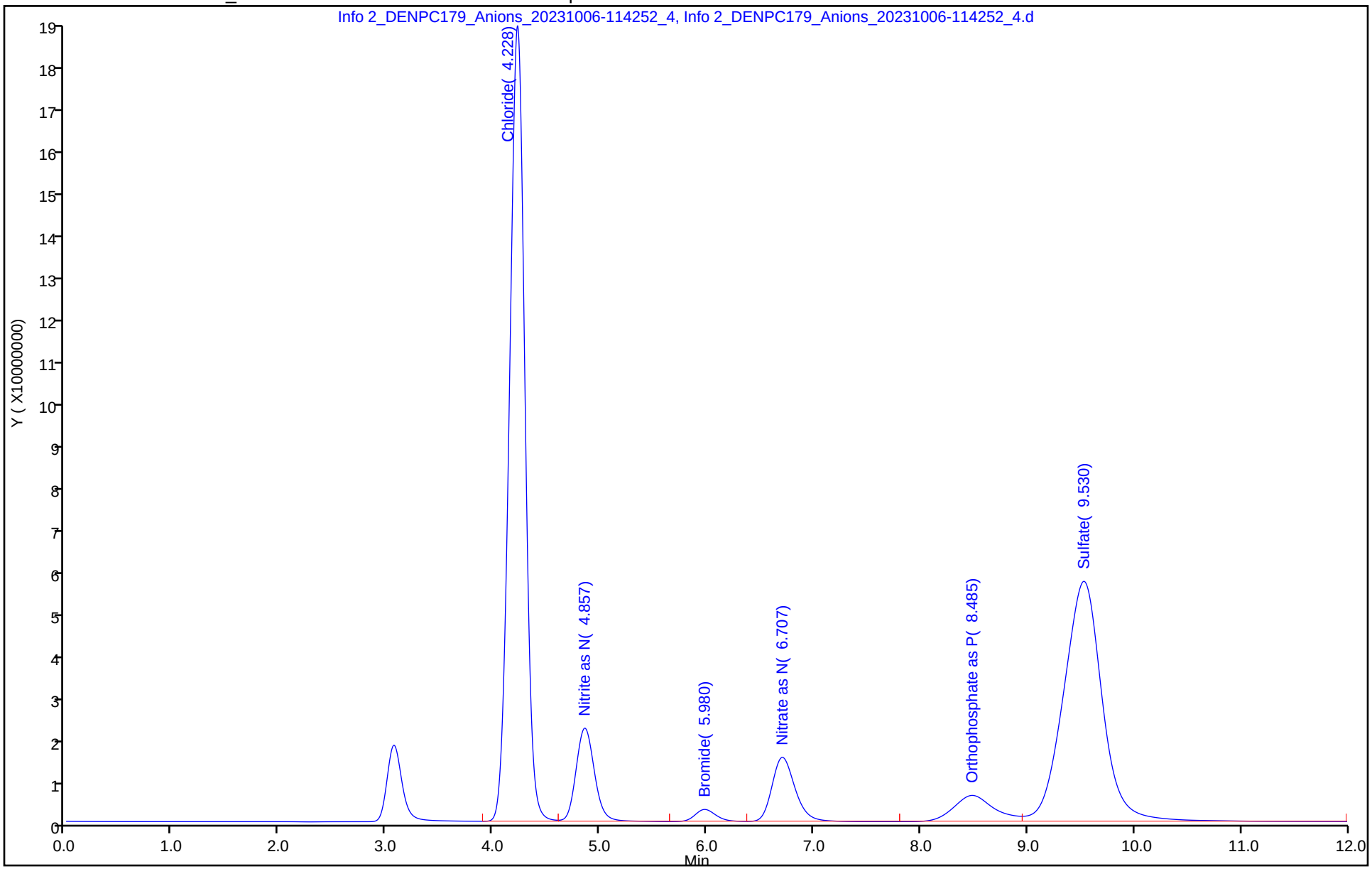
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:07:44 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114252_4.d				
Injection Date:	05-Oct-2023 20:17:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	05-Oct-2023 20:32:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-030				
Misc. Info.:	280-0126193-030				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions				
Last Update:	06-Oct-2023 12:07:43	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.193	4.230	-0.037	119622		NC	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.587	8.493	0.094	10952866		-0.2177	
7 Sulfate	9.660	9.533	0.127	8739884		NC	

QC Flag Legend

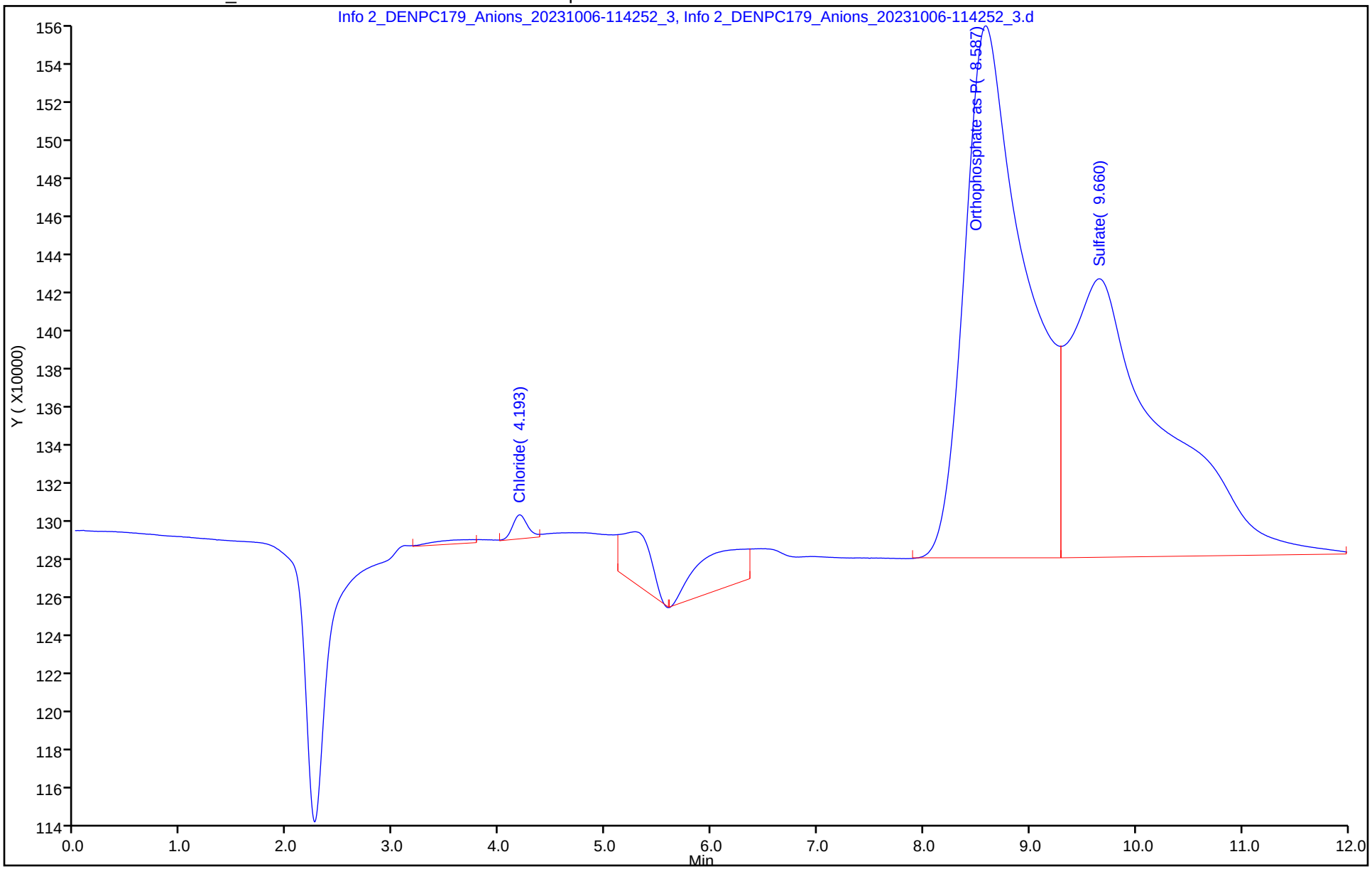
Processing Flags

NC - Not Calibrated

Report Date: 06-Oct-2023 12:07:44 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114252_3.d				
Injection Date:	05-Oct-2023 20:32:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	30
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 05-Oct-2023 22:17:00 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-037
Misc. Info.: 280-0126193-037
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:08:29 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.228	4.230	-0.002	1902393578	NC	NC	
3 Nitrite as N	4.858	4.857	0.001	266049392	5.00	5.04	
4 Bromide	5.980	5.993	-0.013	39290181	NC	NC	
5 Nitrate as N	6.710	6.715	-0.005	230047310	5.00	4.72	
6 Orthophosphate as P	8.487	8.493	-0.006	163030128	5.00	5.89	
7 Sulfate	9.535	9.533	0.002	1447366554	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

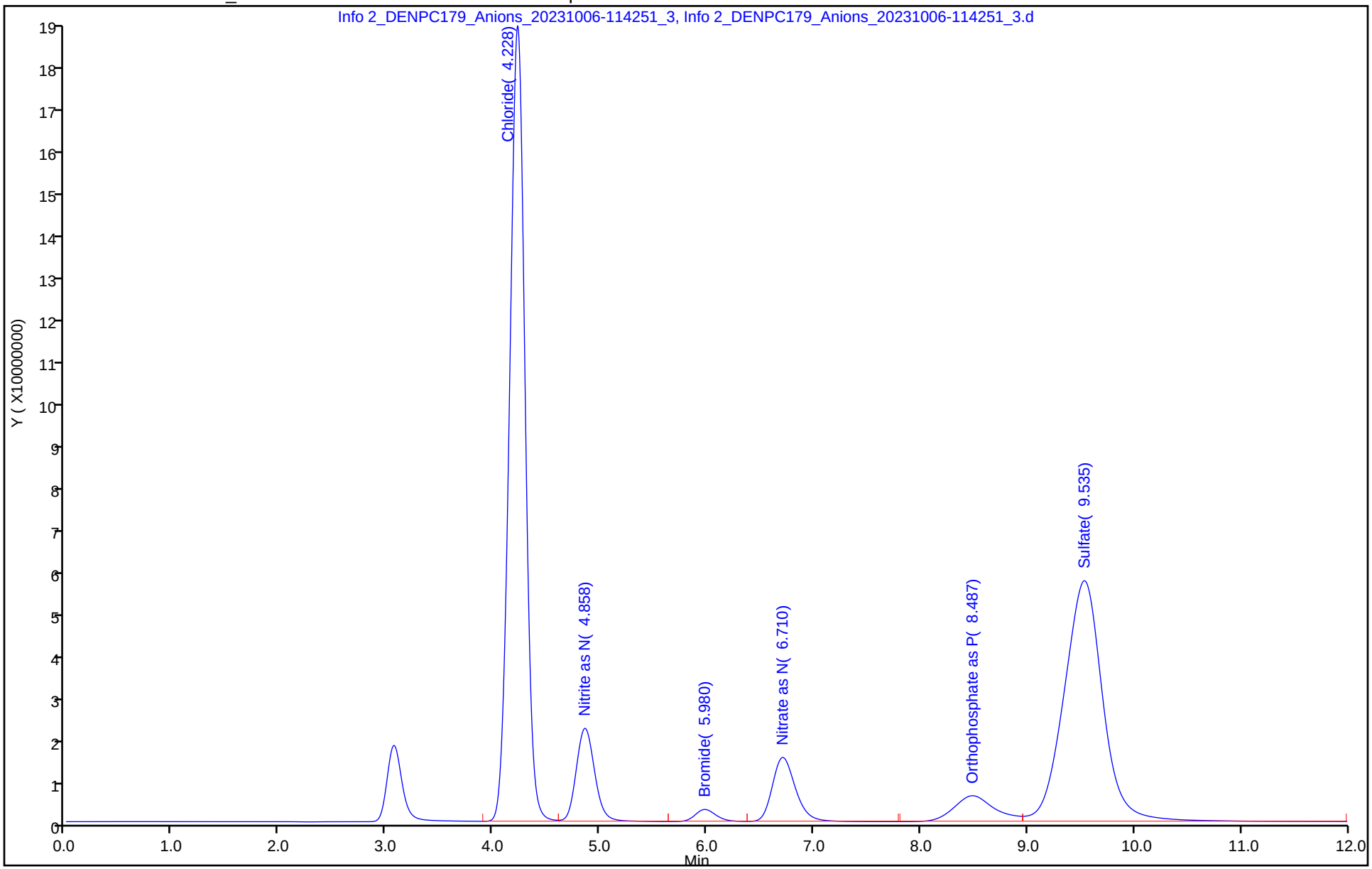
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:09:41 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114251_3.d				
Injection Date:	05-Oct-2023 22:17:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	lcs			Worklist Smp#:	37
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 05-Oct-2023 22:32:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-038
Misc. Info.: 280-0126193-038
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:08:29 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.232	4.230	0.002	1903942643	NC	NC	
3 Nitrite as N	4.862	4.857	0.005	267825170	5.00	5.08	
4 Bromide	5.992	5.993	-0.001	39304309	NC	NC	
5 Nitrate as N	6.720	6.715	0.005	230075665	5.00	4.72	
6 Orthophosphate as P	8.492	8.493	-0.001	167781322	5.00	6.08	
7 Sulfate	9.542	9.533	0.009	1449166206	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

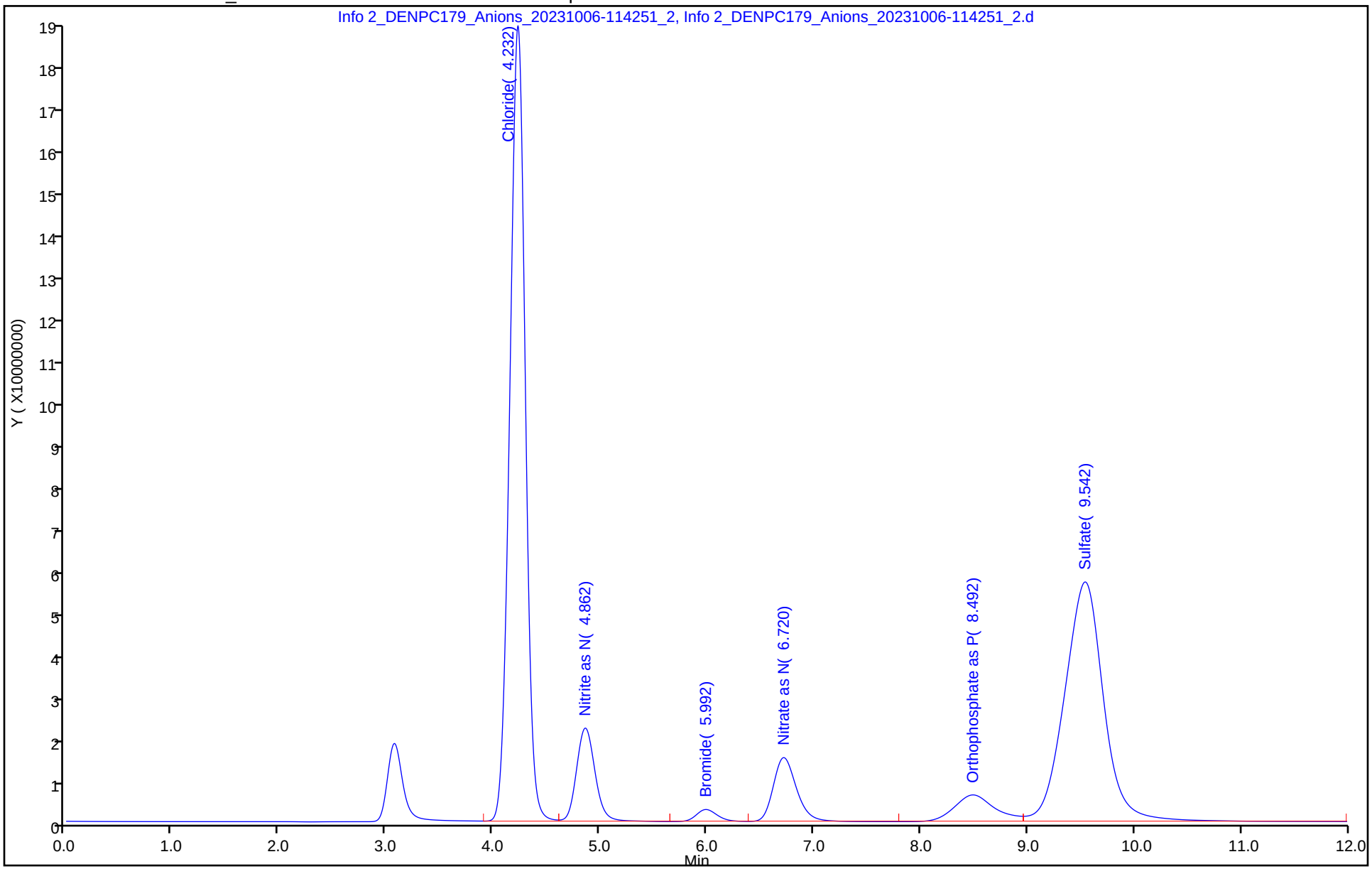
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:09:42 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114251_2.d				
Injection Date:	05-Oct-2023 22:32:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	lcsd			Worklist Smp#:	38
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	05-Oct-2023 22:47:00	ALS Bottle#:	0	Worklist Smp#:	39
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-039				
Misc. Info.:	280-0126193-039				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions				
Last Update:	06-Oct-2023 12:08:29	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.187	4.230	-0.043	71065		NC	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.578	8.493	0.085	15226298		-0.0461	
7 Sulfate	9.650	9.533	0.117	10477184		NC	

QC Flag Legend

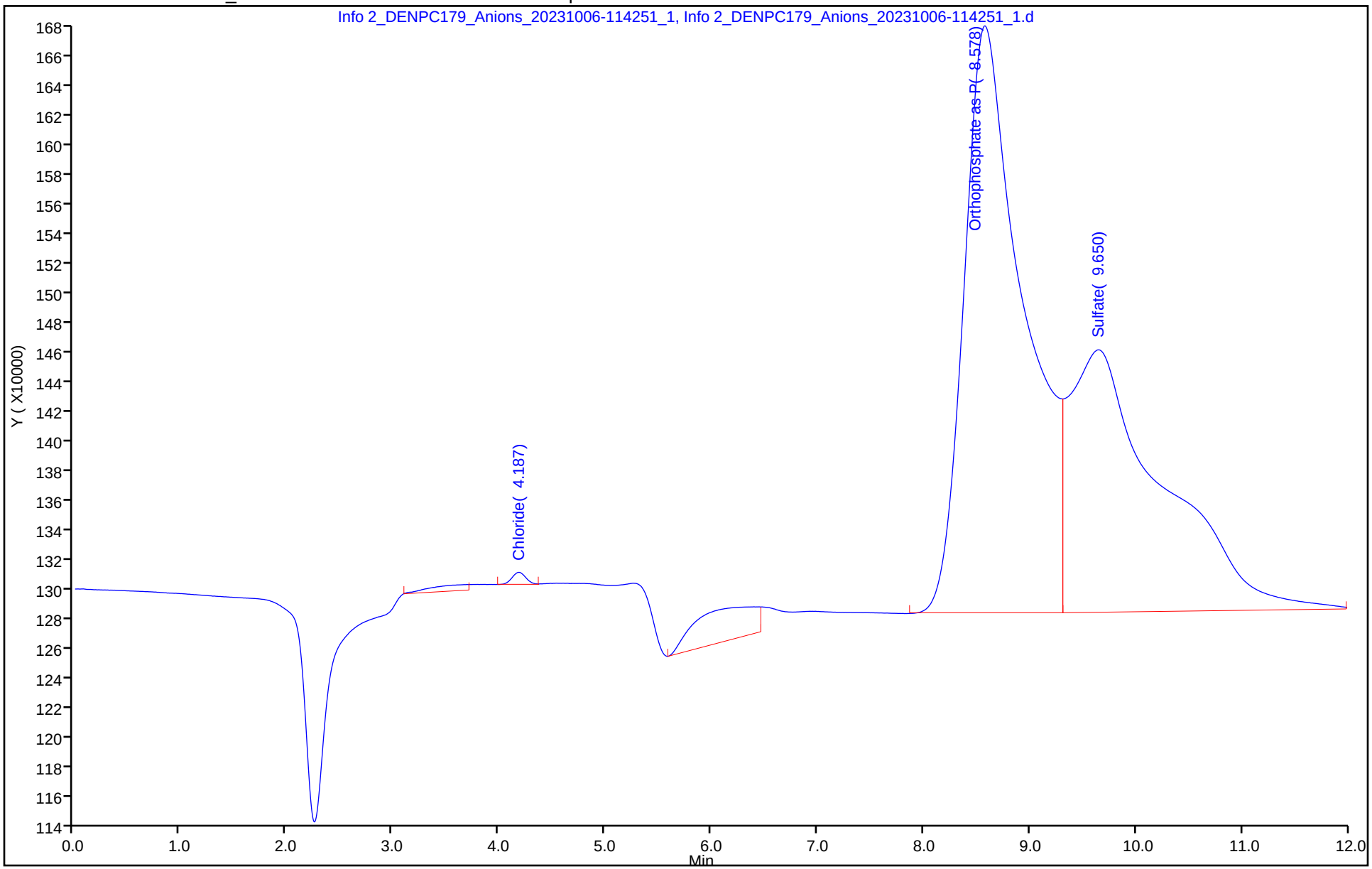
Processing Flags

NC - Not Calibrated

Report Date: 06-Oct-2023 12:09:43 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114251_1.d				
Injection Date:	05-Oct-2023 22:47:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	mb			Worklist Smp#:	39
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 05-Oct-2023 23:17:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-041
Misc. Info.: 280-0126193-041
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:07:56 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.230	4.230	0.000	1902168447	NC	NC	
3 Nitrite as N	4.860	4.857	0.003	266446029	5.00	5.05	
4 Bromide	5.988	5.993	-0.005	39412495	NC	NC	
5 Nitrate as N	6.715	6.715	0.000	230123037	5.00	4.72	
6 Orthophosphate as P	8.485	8.493	-0.008	162929404	5.00	5.89	
7 Sulfate	9.535	9.533	0.002	1445296520	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

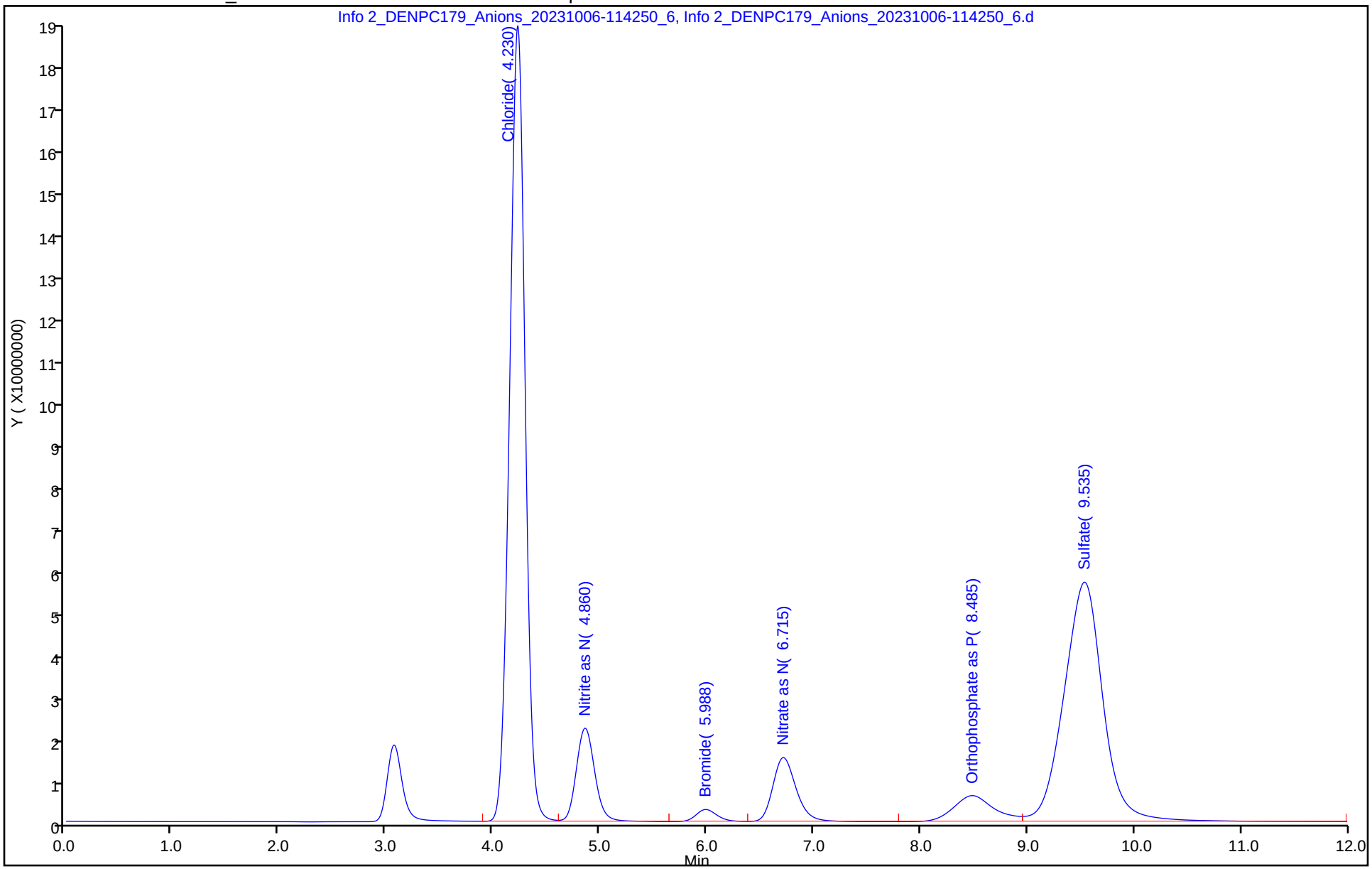
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:07:56 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114250_6.d				
Injection Date:	05-Oct-2023 23:17:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	41
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	05-Oct-2023 23:32:00	ALS Bottle#:	0	Worklist Smp#:	42
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-042				
Misc. Info.:	280-0126193-042				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions				
Last Update:	06-Oct-2023 12:08:29	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.188	4.230	-0.042	76435		NC	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.582	8.493	0.089	12761636		-0.1450	
7 Sulfate	9.653	9.533	0.120	9580789		NC	

QC Flag Legend

Processing Flags

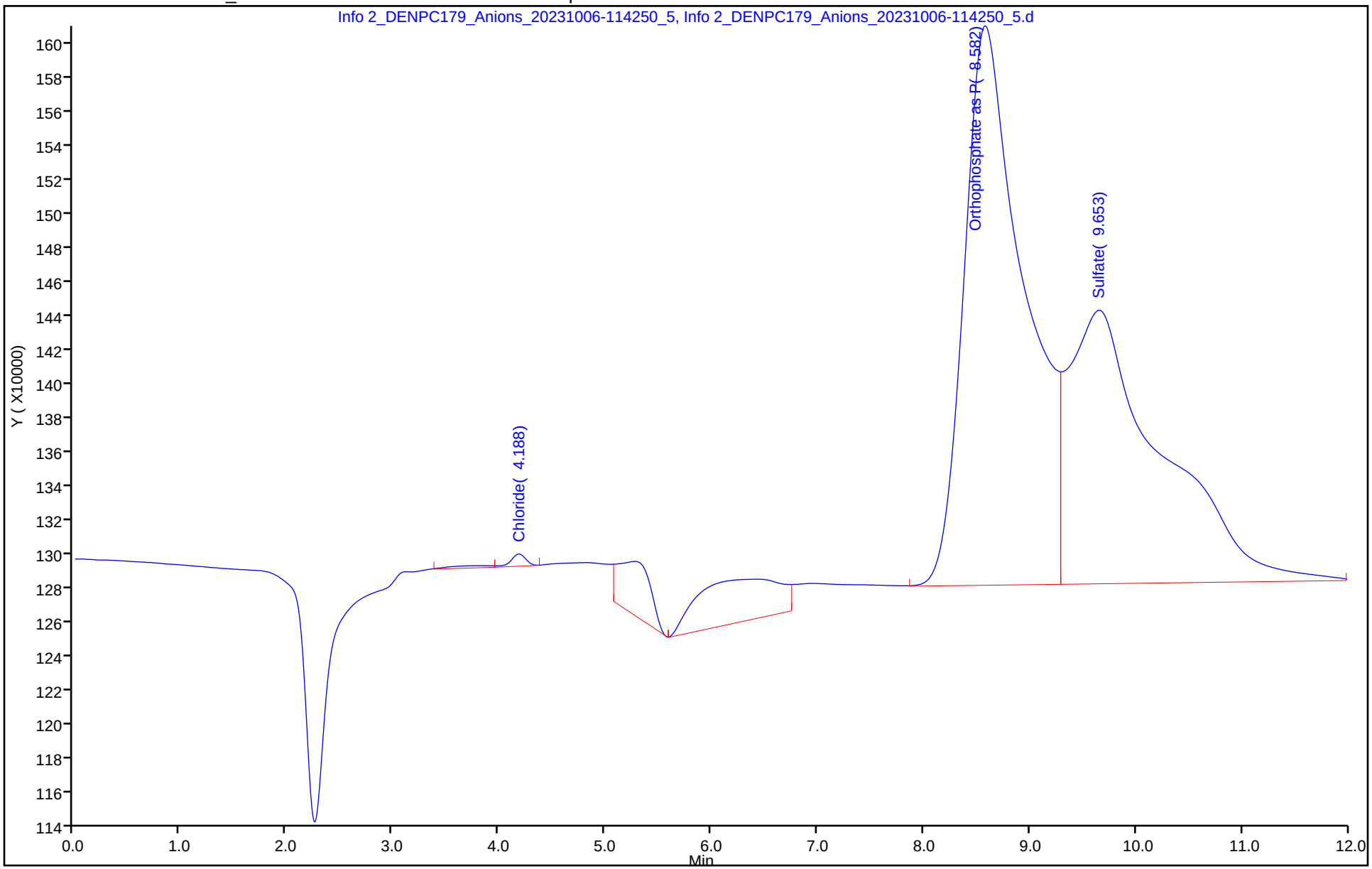
NC - Not Calibrated

Report Date: 06-Oct-2023 12:09:48 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114250_5.d

Injection Date:	05-Oct-2023 23:32:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	42
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: 280-182443-E-7
Client ID: WBGmw-018-230901-GW
Sample Type: Client
Inject. Date: 06-Oct-2023 00:47:00 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-047
Misc. Info.: 280-0126193-047
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:07:56 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	
2 Chloride	4.190	4.230	-0.040	15254445	NC	
3 Nitrite as N	4.860	4.857	0.003	71622	0.0138	
4 Bromide	6.103	5.993	0.110	1057547	NC	
5 Nitrate as N	6.807	6.715	0.092	19495805	0.4331	
6 Orthophosphate as P	8.588	8.493	0.095	10728265	-0.2267	
7 Sulfate	9.567	9.533	0.034	166783263	NC	

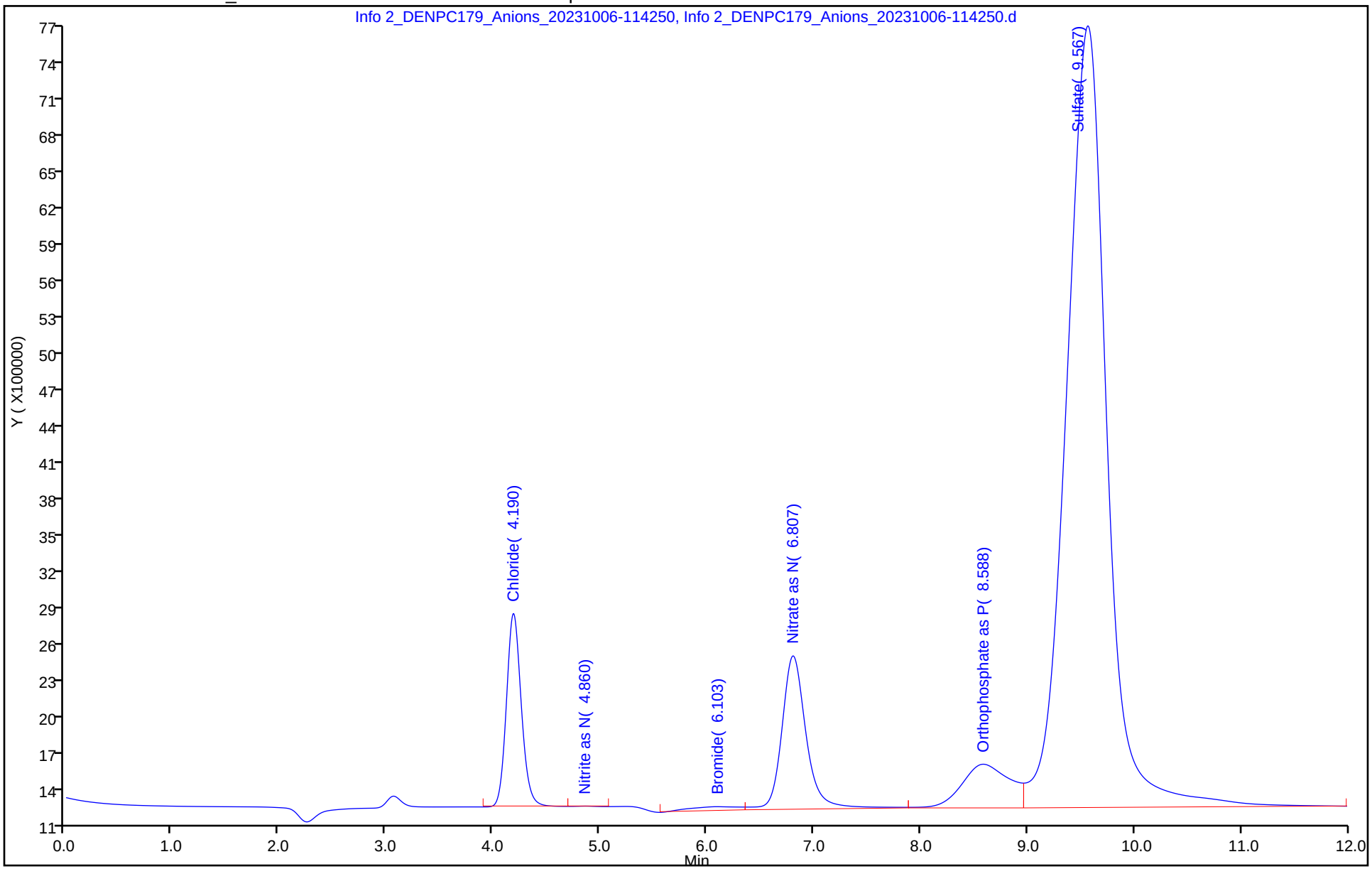
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:08:10 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114250.d				
Injection Date:	06-Oct-2023 00:47:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-7	Lab Sample ID:	280-182443-7	Worklist Smp#:	47
Client ID:	WBGmw-018-230901-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: 280-182443-E-8
Client ID: WBGMW-RB-018-2023
Sample Type: Client
Inject. Date: 06-Oct-2023 01:47:00 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-051
Misc. Info.: 280-0126193-051
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:08:29 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	
2 Chloride	4.190	4.230	-0.040	93133	NC	
3 Nitrite as N		4.857			ND	
4 Bromide		5.993			ND	
5 Nitrate as N		6.715			ND	
6 Orthophosphate as P	8.592	8.493	0.099	4383042	-0.4815	
7 Sulfate	9.663	9.533	0.130	5471736	NC	

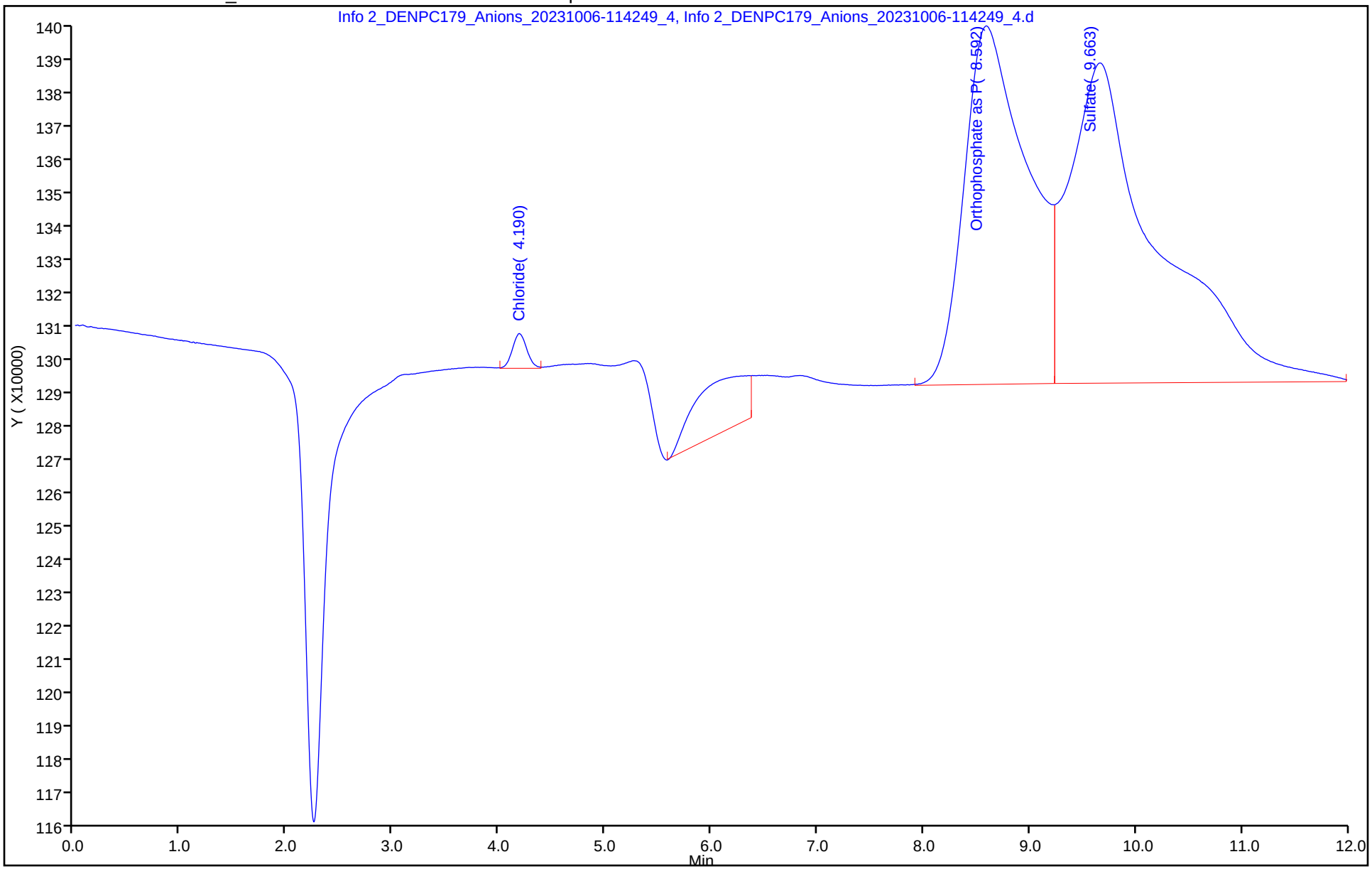
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:09:56 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114249_4.d				
Injection Date:	06-Oct-2023 01:47:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-8	Lab Sample ID:	280-182443-8	Worklist Smp#:	51
Client ID:	WBGMW-RB-018-2023				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 06-Oct-2023 02:17:00 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-053
Misc. Info.: 280-0126193-053
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:09:57 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.230	4.230	0.000	1923902737	NC	NC	
3 Nitrite as N	4.863	4.857	0.006	268556498	5.00	5.09	
4 Bromide	5.988	5.993	-0.005	39686389	NC	NC	
5 Nitrate as N	6.720	6.715	0.005	232632729	5.00	4.77	
6 Orthophosphate as P	8.482	8.493	-0.011	161029406	5.00	5.81	
7 Sulfate	9.532	9.533	-0.001	1461321619	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

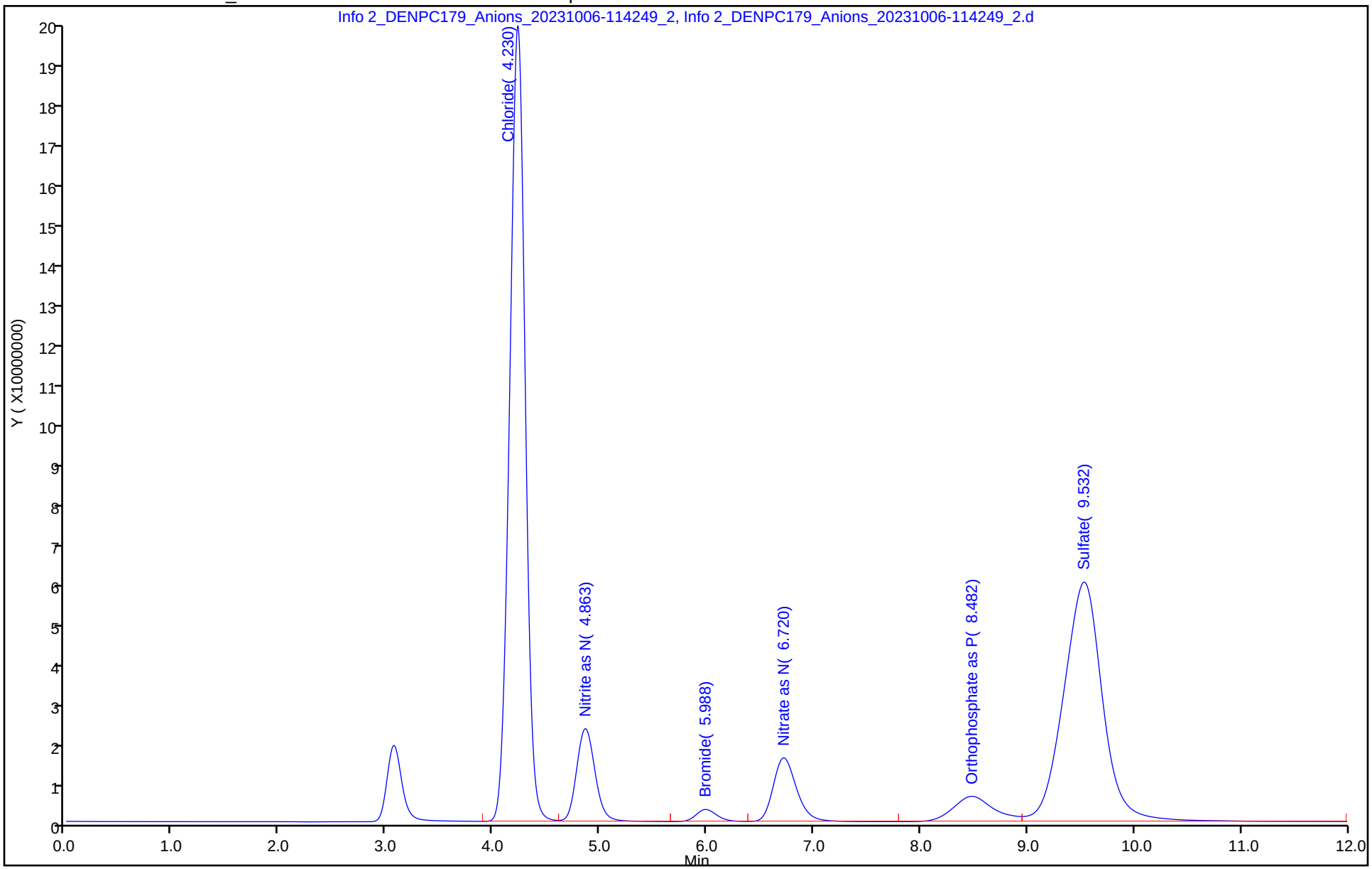
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:09:57 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114249_2.d				
Injection Date:	06-Oct-2023 02:17:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	53
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 06-Oct-2023 02:32:00 ALS Bottle#: 0 Worklist Smp#: 54
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-054
Misc. Info.: 280-0126193-054
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions
Last Update: 06-Oct-2023 12:09:57 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.183	4.230	-0.047	50544		NC	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.580	8.493	0.087	11135676		-0.2103	
7 Sulfate	9.657	9.533	0.124	8920758		NC	

QC Flag Legend

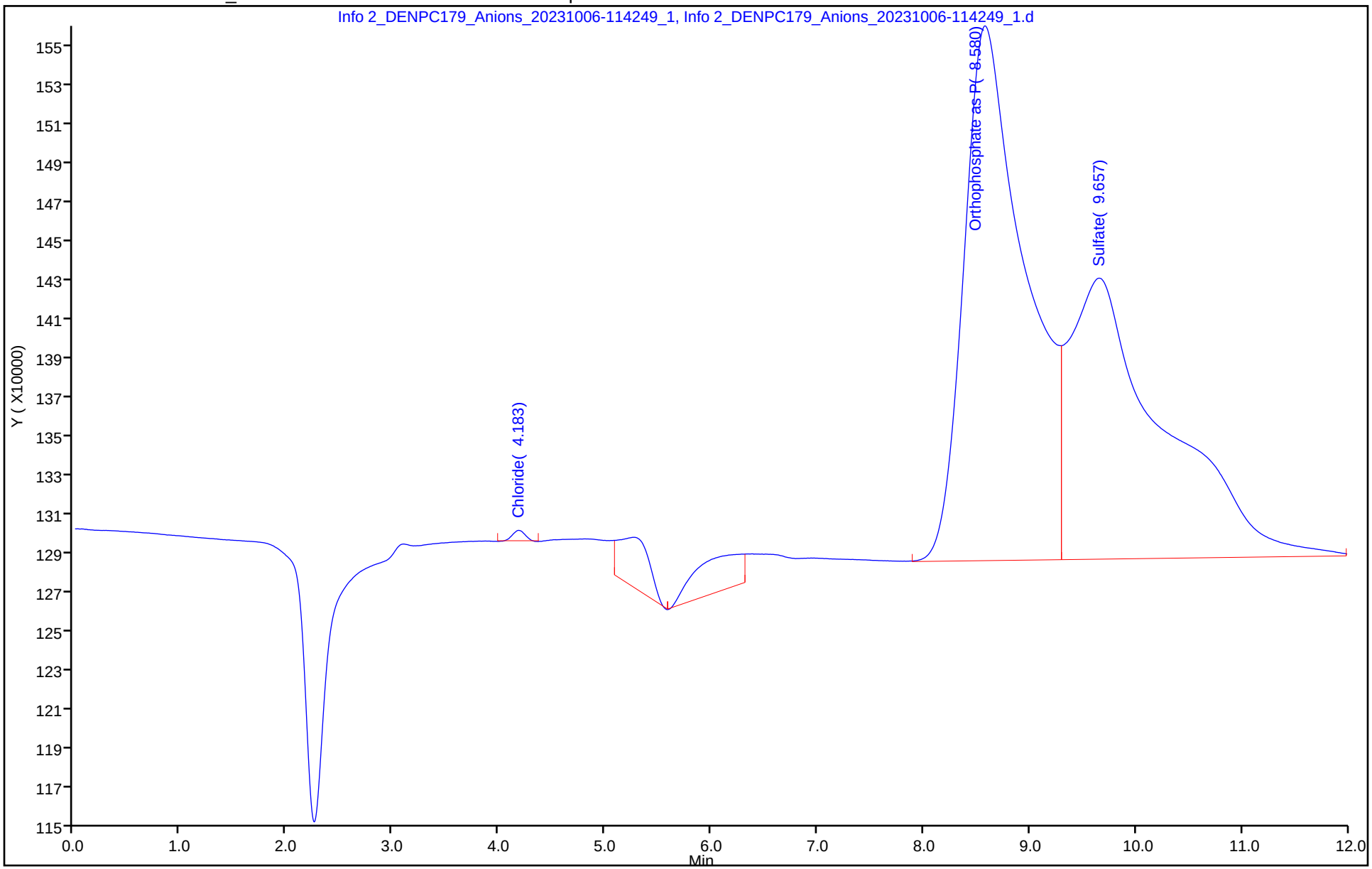
Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:09:58 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114249_1.d

Injection Date:	06-Oct-2023 02:32:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	54
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-Aug-2023 08:23:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-001
Misc. Info.: 280-0124540-001
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 10:41:27 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:26:43

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.073	3.088	-0.015	6493840	0.2000	0.1974	Ma
2 Chloride	4.205	4.257	-0.052	16343527	1.00	1.02	
3 Nitrite as N	4.892	4.875	0.017	9494239	NC	NC	
4 Bromide	6.050	6.008	0.042	2213156	0.2000	0.2249	
5 Nitrate as N	6.813	6.717	0.096	8809383	NC	NC	
6 Orthophosphate as P	8.590	8.530	0.060	20373197	NC	NC	Ma
7 Sulfate	9.640	9.610	0.030	16127136	1.00	1.19	Ma

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

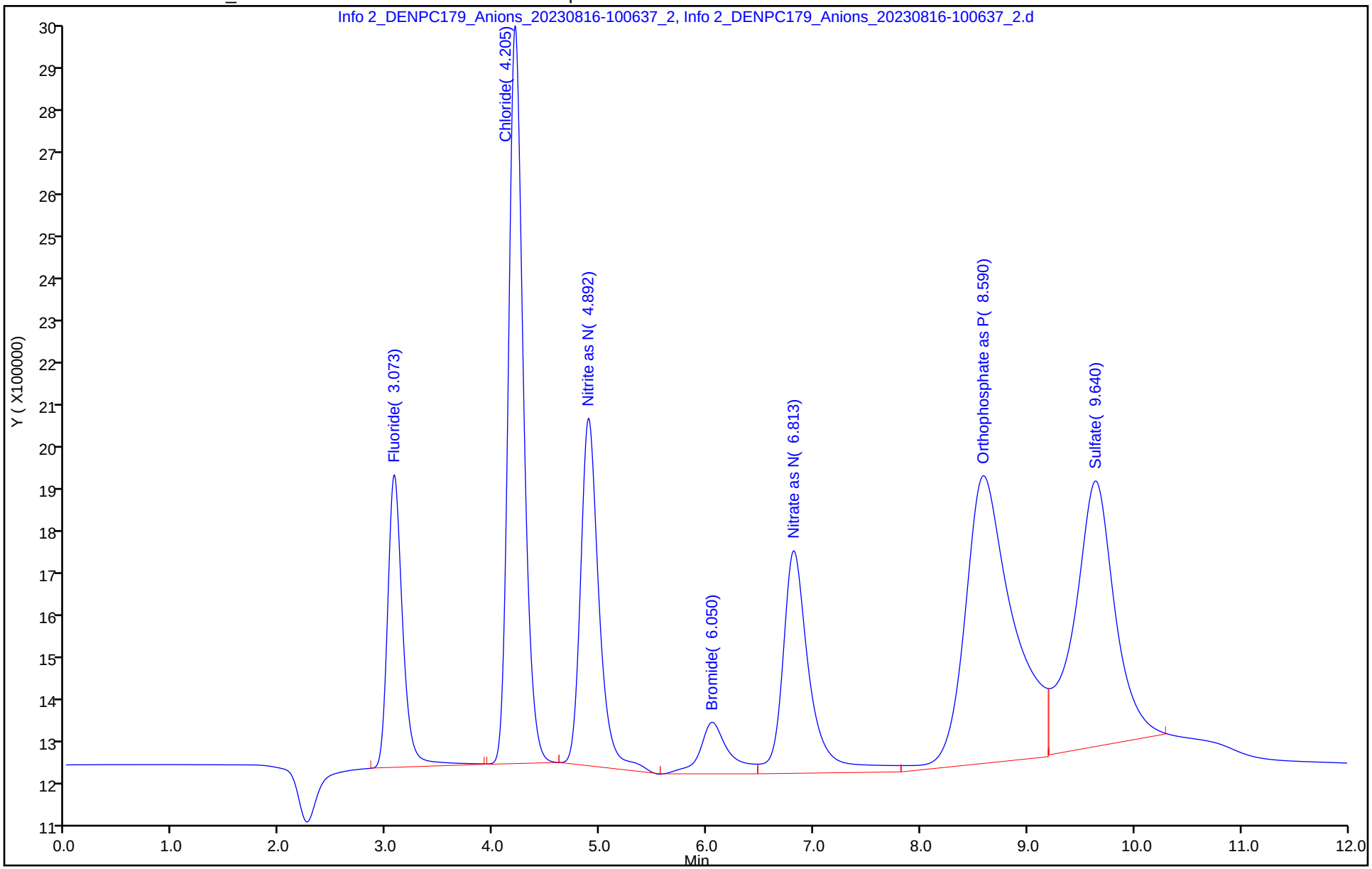
Reagents:

IC Cal low_00722 Amount Added: 0.04 Units: mL
IC CAL cl/so4_00494 Amount Added: 0.04 Units: mL

Report Date: 17-Aug-2023 10:41:27 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100637_2.d				
Injection Date:	16-Aug-2023 08:23:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD1			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

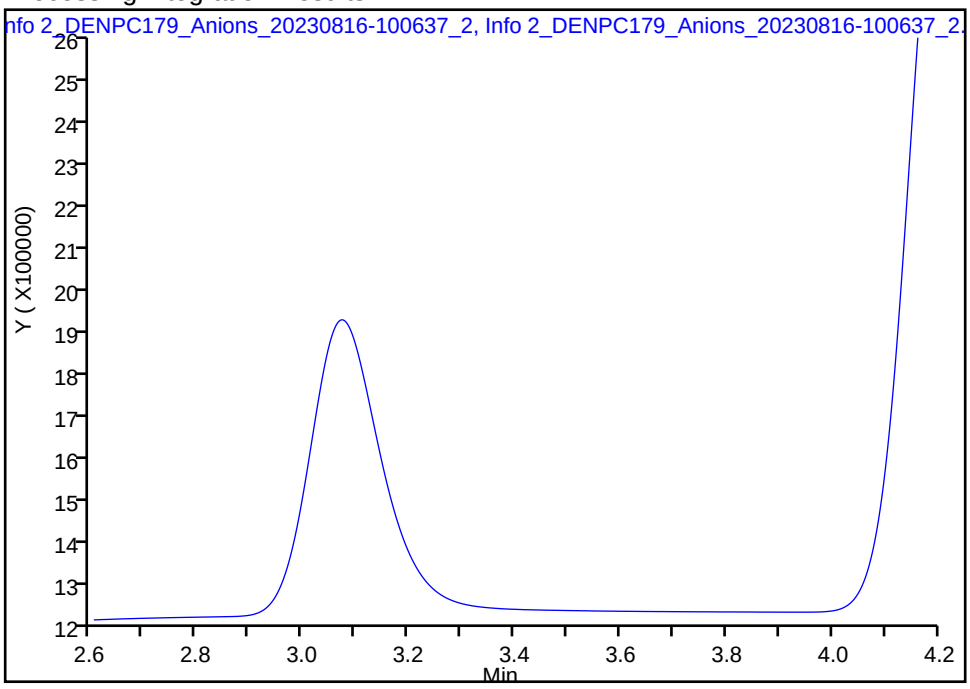
Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Injection Date: 16-Aug-2023 08:23:00 Instrument ID: WC_IonChrom10
Lims ID: STD1
Client ID:
Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Method: Anions_IC10 Limit Group: Wet - Anions 28D
Column: Detector Info 2_091554_1

1 Fluoride, CAS: 16984-48-8

Signal: 1

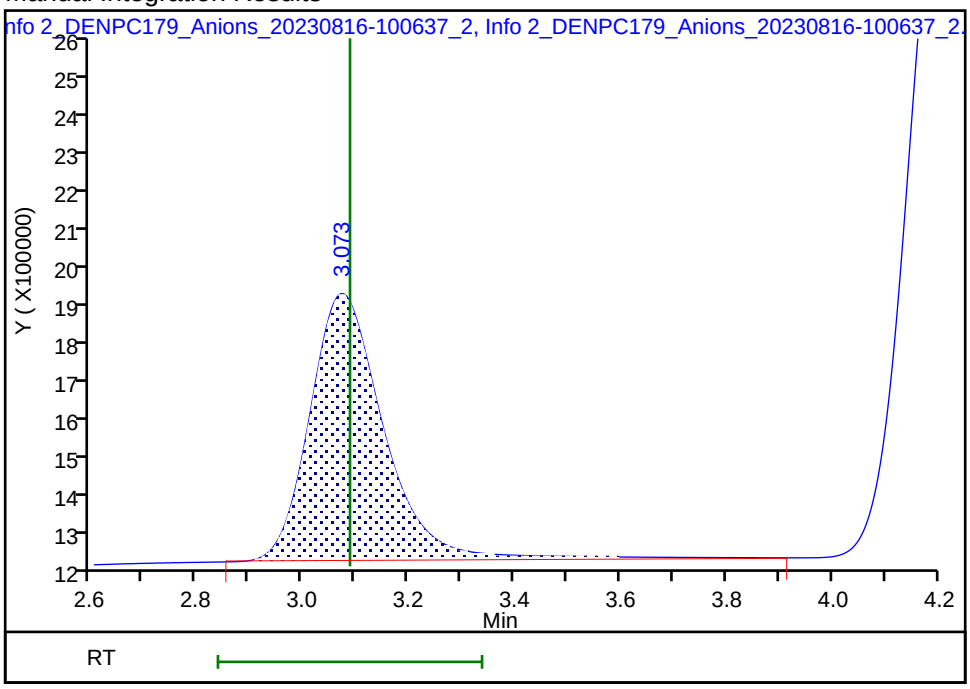
Not Detected
Expected RT: 3.09

Processing Integration Results



Manual Integration Results

RT: 3.07
Area: 6493840
Amount: 0.197356
Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:30:35 -06:00:00 (UTC)
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 08:23:00 Instrument ID: WC_IonChrom10

Lims ID: STD1

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 1

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

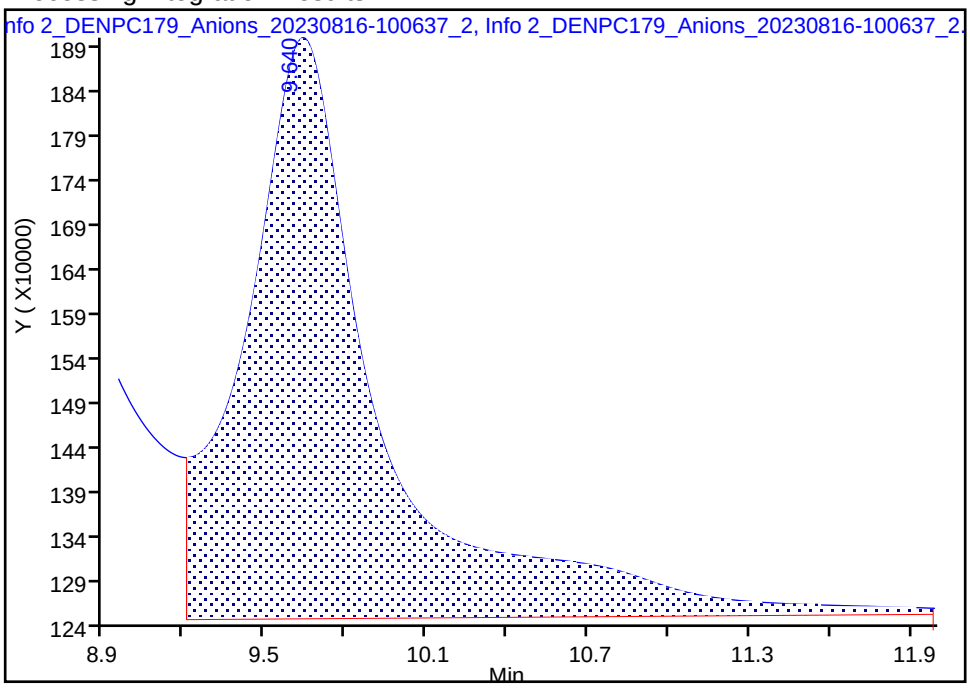
Column: Detector Info 2_091554_1

7 Sulfate, CAS: 14808-79-8

Signal: 1

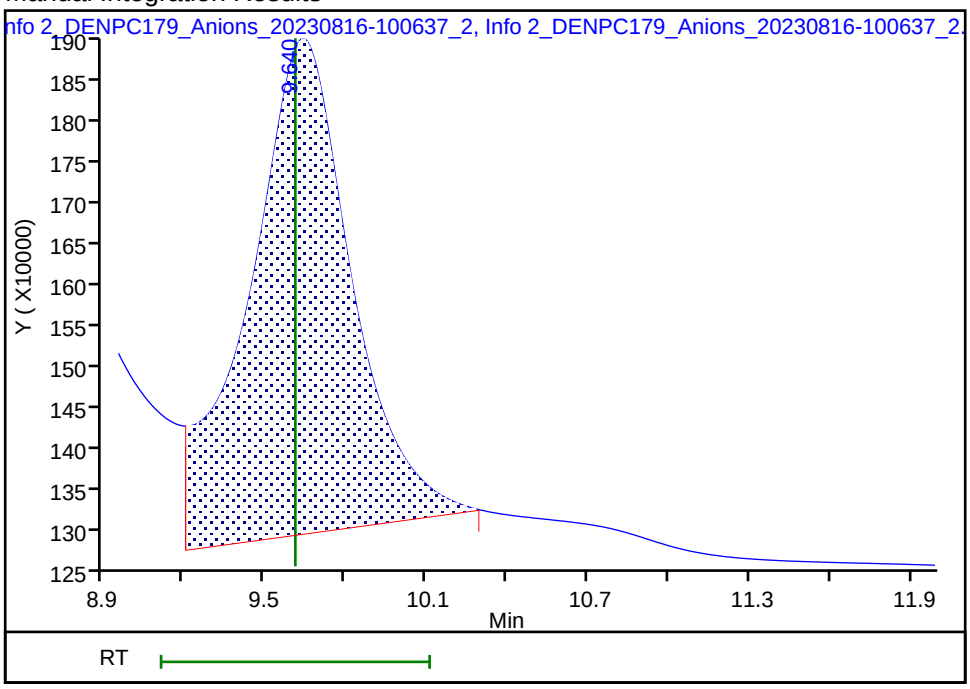
Processing Integration Results

RT: 9.64
Area: 22902781
Amount: 1.350970
Amount Units: ug/ml



Manual Integration Results

RT: 9.64
Area: 16127136
Amount: 1.193740
Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:46:32 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-Aug-2023 08:38:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-002
Misc. Info.: 280-0124540-002
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 10:41:28 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:27:05

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.077	3.088	-0.011	18607618	0.5000	0.4872	Ma
2 Chloride	4.205	4.257	-0.052	44142315	2.50	2.46	
3 Nitrite as N	4.890	4.875	0.015	25589762	NC	NC	
4 Bromide	6.045	6.008	0.037	4337564	0.5000	0.4829	
5 Nitrate as N	6.797	6.717	0.080	22129548	NC	NC	
6 Orthophosphate as P	8.580	8.530	0.050	30713996	NC	NC	M
7 Sulfate	9.643	9.610	0.033	32737705	2.50	2.34	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

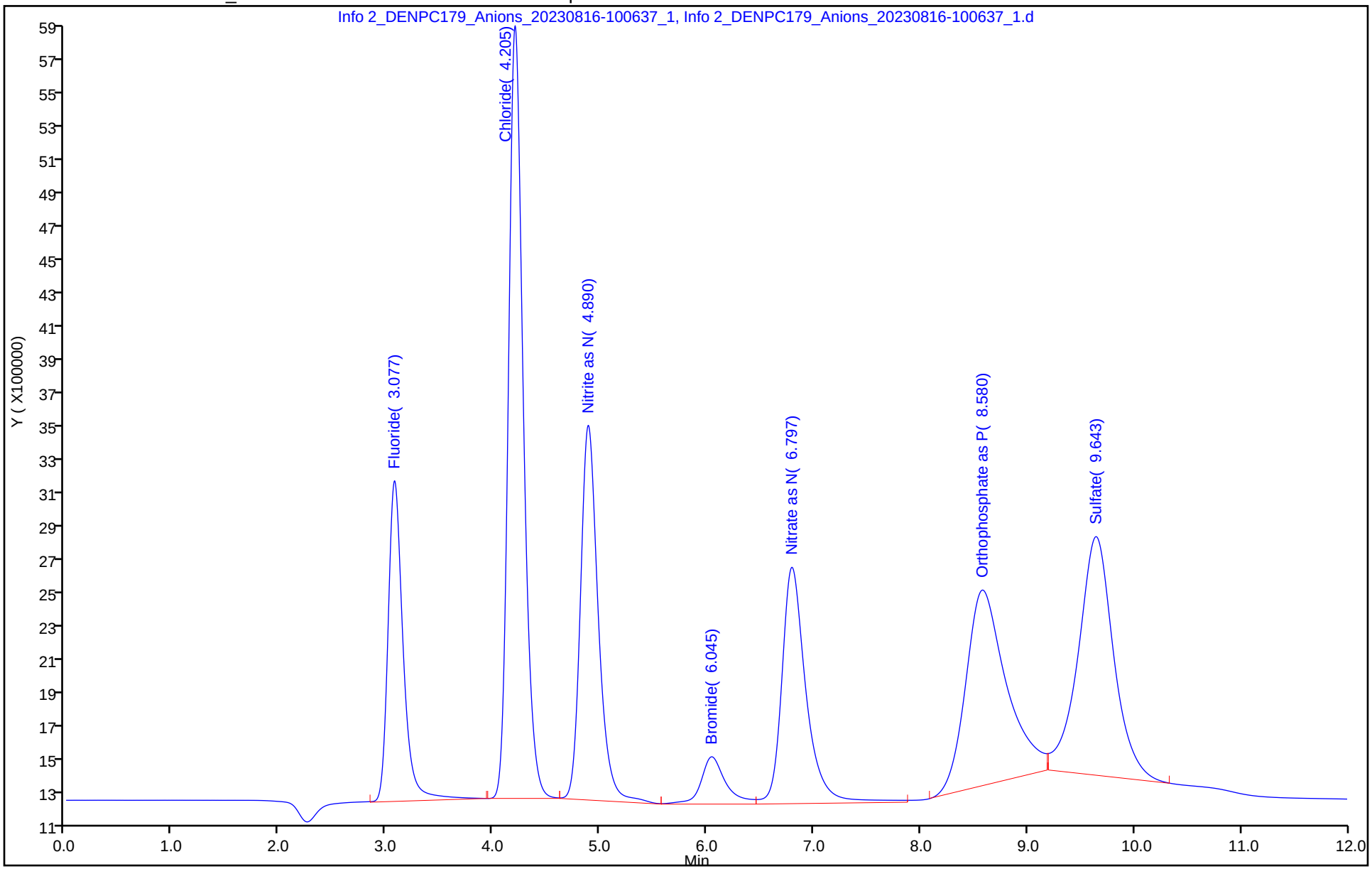
Reagents:

IC Cal low_00722 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00494 Amount Added: 0.10 Units: mL

Report Date: 17-Aug-2023 10:41:28 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100637_1.d				
Injection Date:	16-Aug-2023 08:38:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD2			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 08:38:00 Instrument ID: WC_IonChrom10

Lims ID: STD2

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

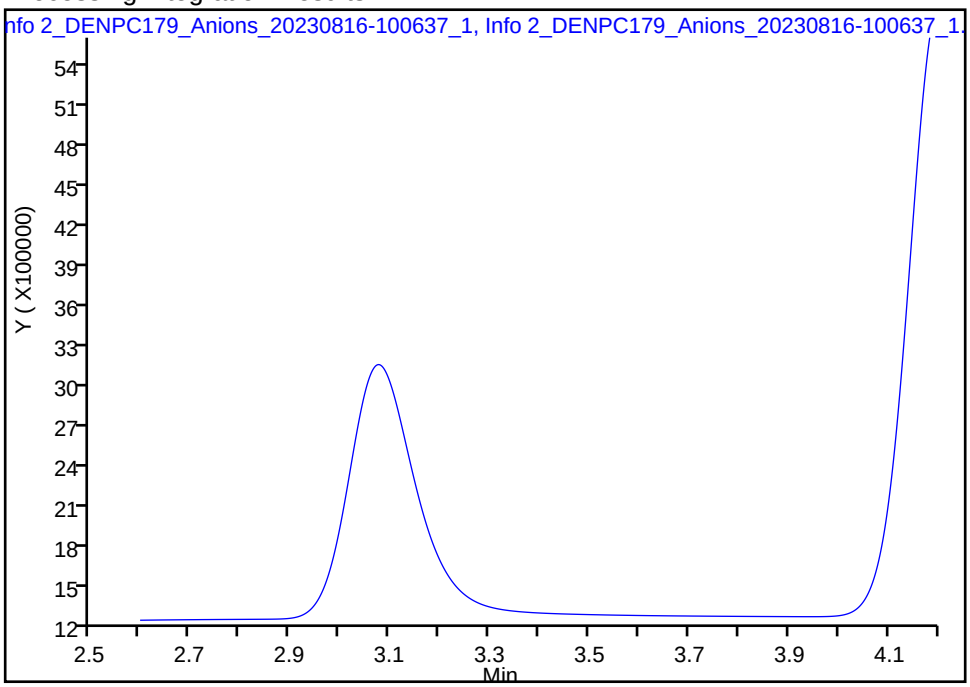
1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 3.09

Processing Integration Results



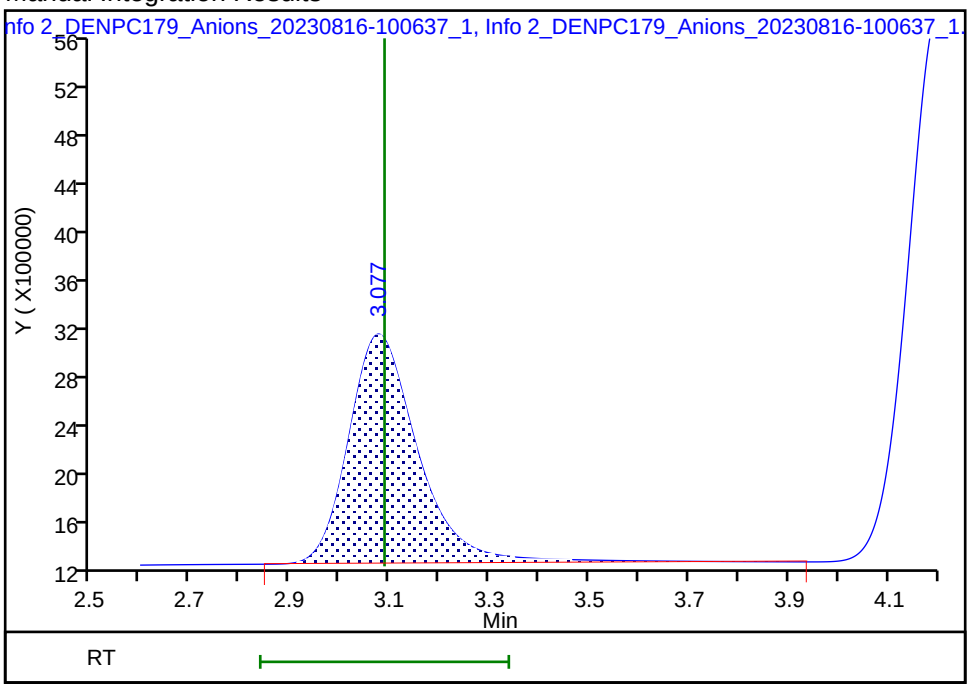
Manual Integration Results

RT: 3.08

Area: 18607618

Amount: 0.487248

Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:30:26 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 08:38:00 Instrument ID: WC_IonChrom10

Lims ID: STD2

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 2

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

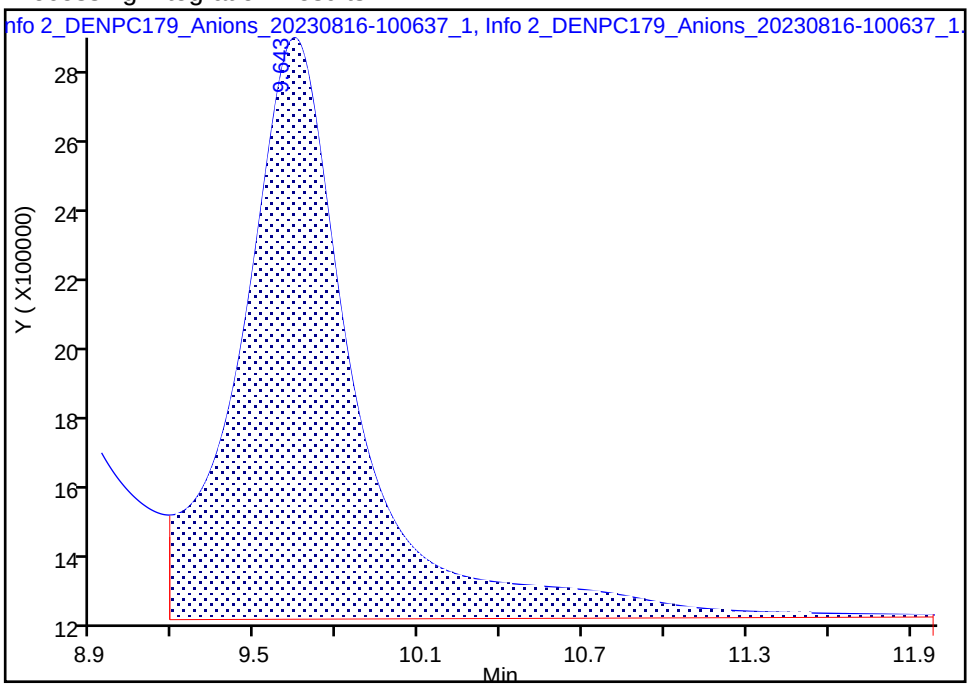
Column: Detector Info 2_091554_1

7 Sulfate, CAS: 14808-79-8

Signal: 1

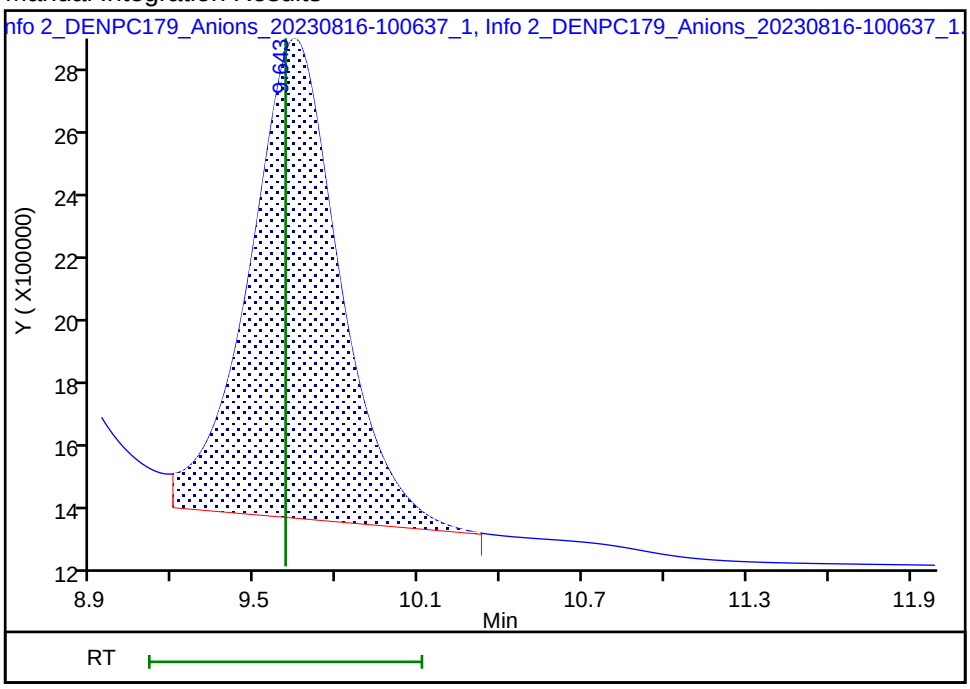
Processing Integration Results

RT: 9.64
Area: 46811509
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 9.64
Area: 32737705
Amount: 2.336845
Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:36:04 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 16-Aug-2023 08:54:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-003
Misc. Info.: 280-0124540-003
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 10:39:52 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:27:53

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.078	3.078	0.000	40803610	1.00	1.02	Ma
2 Chloride	4.202	4.238	-0.036	92390398	5.00	4.96	
3 Nitrite as N	4.885	4.873	0.012	53593060	NC	NC	
4 Bromide	6.037	6.012	0.025	7960626	1.00	0.9230	
5 Nitrate as N	6.777	6.723	0.054	44959242	NC	NC	
6 Orthophosphate as P	8.570	8.545	0.025	42106377	NC	NC	M
7 Sulfate	9.643	9.628	0.015	62271915	5.00	4.37	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

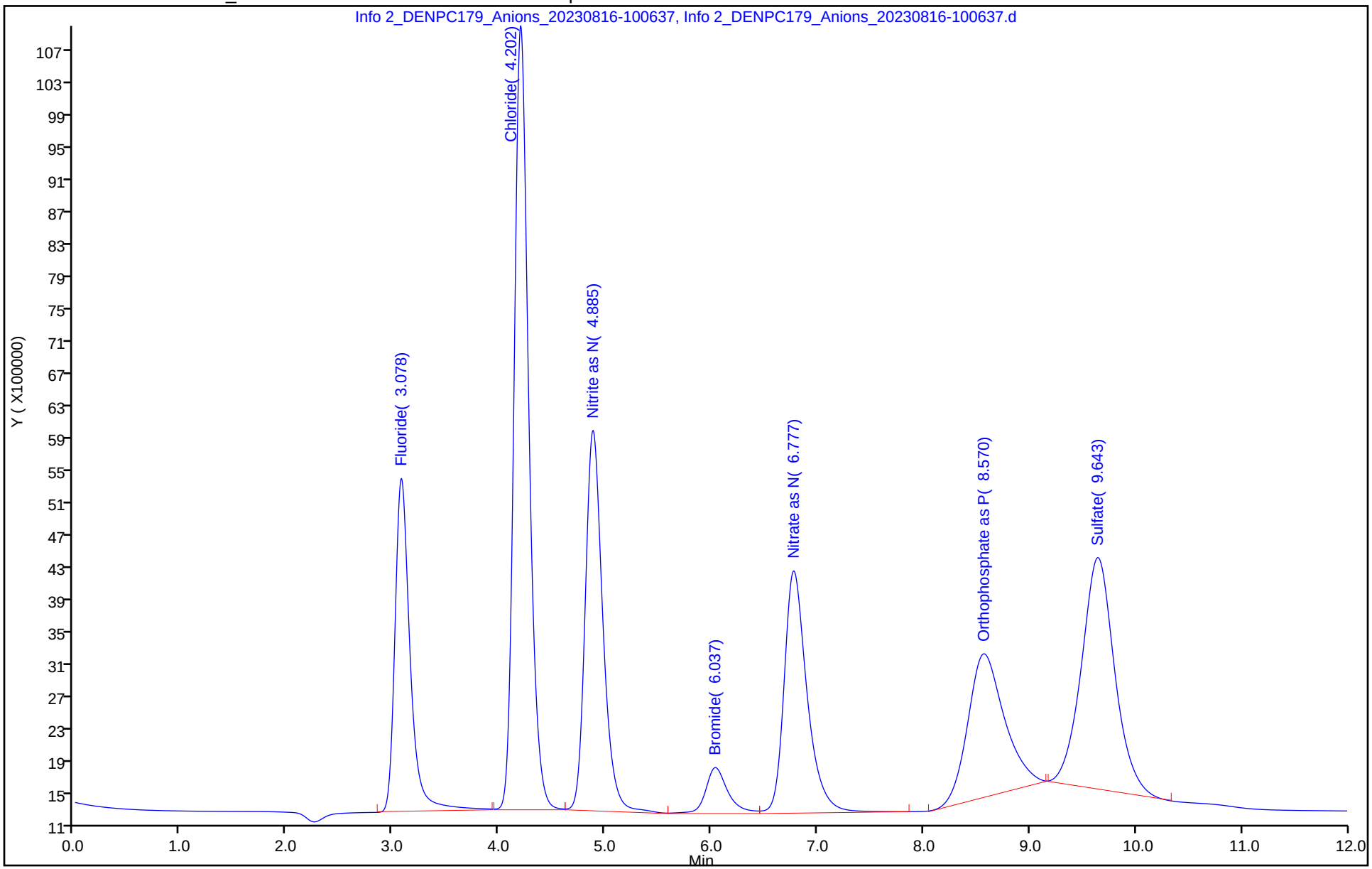
Reagents:

IC Cal low_00722 Amount Added: 0.20 Units: mL
IC CAL cl/so4_00494 Amount Added: 0.20 Units: mL

Report Date: 17-Aug-2023 10:39:52 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100637.d				
Injection Date:	16-Aug-2023 08:54:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD3			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 08:54:00 Instrument ID: WC_IonChrom10

Lims ID: STD3

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

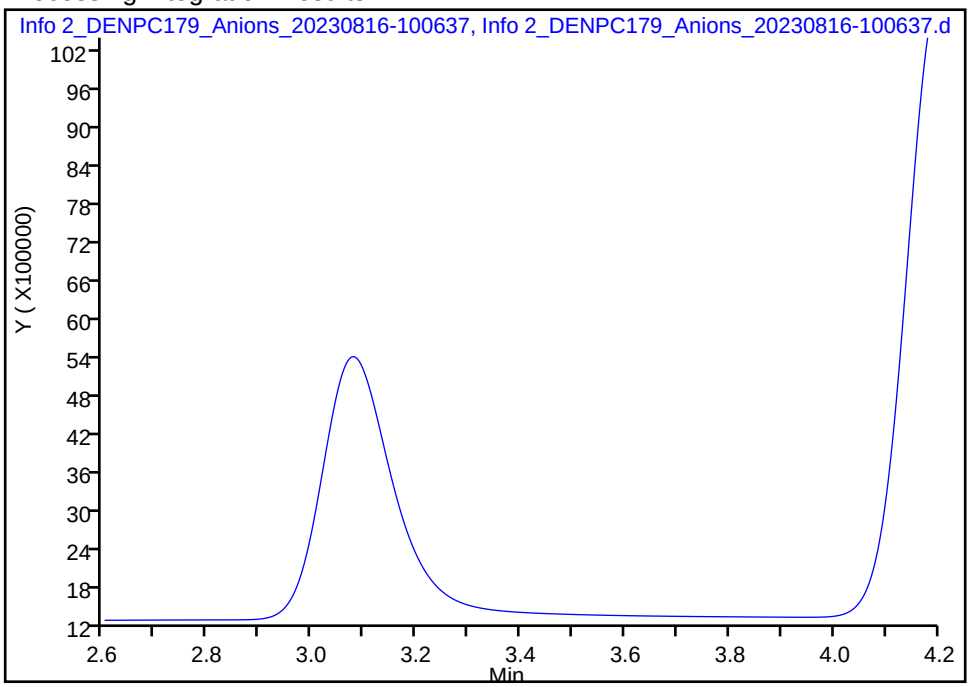
1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 3.08

Processing Integration Results



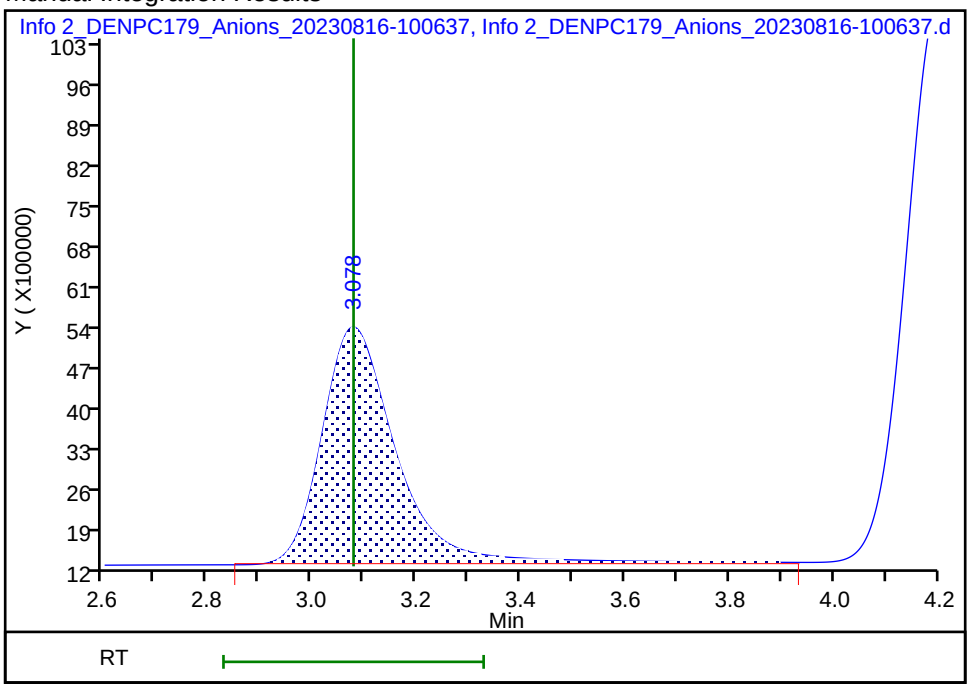
Manual Integration Results

RT: 3.08

Area: 40803610

Amount: 1.018413

Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:30:18 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 08:54:00 Instrument ID: WC_IonChrom10

Lims ID: STD3

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 3

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

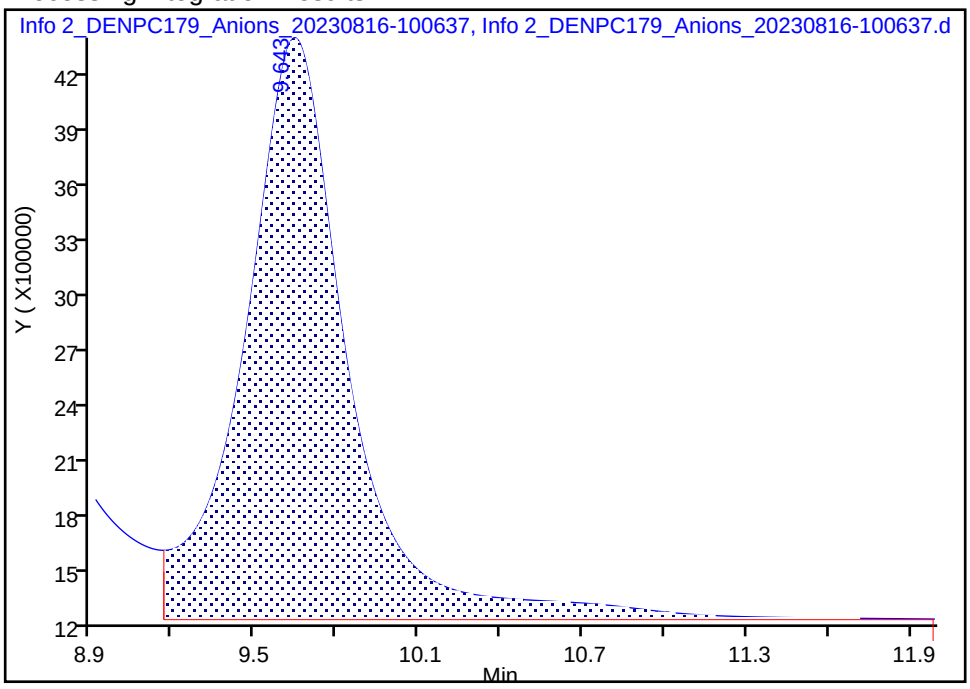
Column: Detector Info 2_091554_1

7 Sulfate, CAS: 14808-79-8

Signal: 1

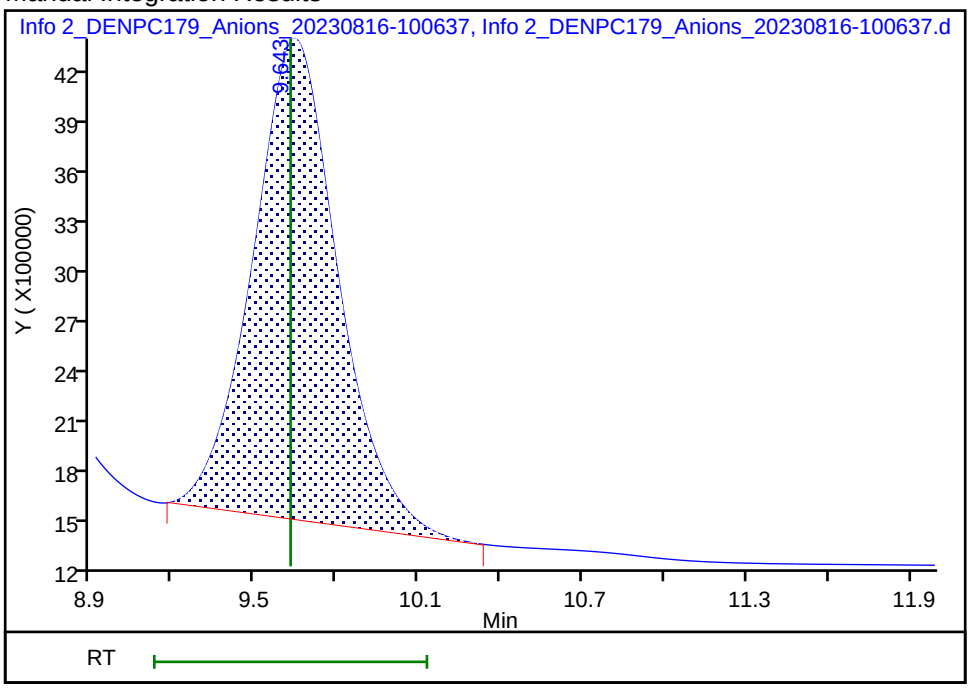
Processing Integration Results

RT: 9.64
Area: 84477656
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 9.64
Area: 62271915
Amount: 4.369329
Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:27:50 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-Aug-2023 09:09:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-004
Misc. Info.: 280-0124540-004
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 10:41:29 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:28:16

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.083	0.000	171459973	4.00	4.15	Ma
2 Chloride	4.225	4.225	0.000	1158723576	60.0	60.1	
3 Nitrite as N	4.877	4.877	0.000	218611235	NC	NC	
4 Bromide	6.022	6.022	0.000	32146652	4.00	3.86	
5 Nitrate as N	6.737	6.737	0.000	192114513	NC	NC	
6 Orthophosphate as P	8.543	8.543	0.000	118853705	NC	NC	M
7 Sulfate	9.627	9.627	0.000	859732703	60.0	59.2	M

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

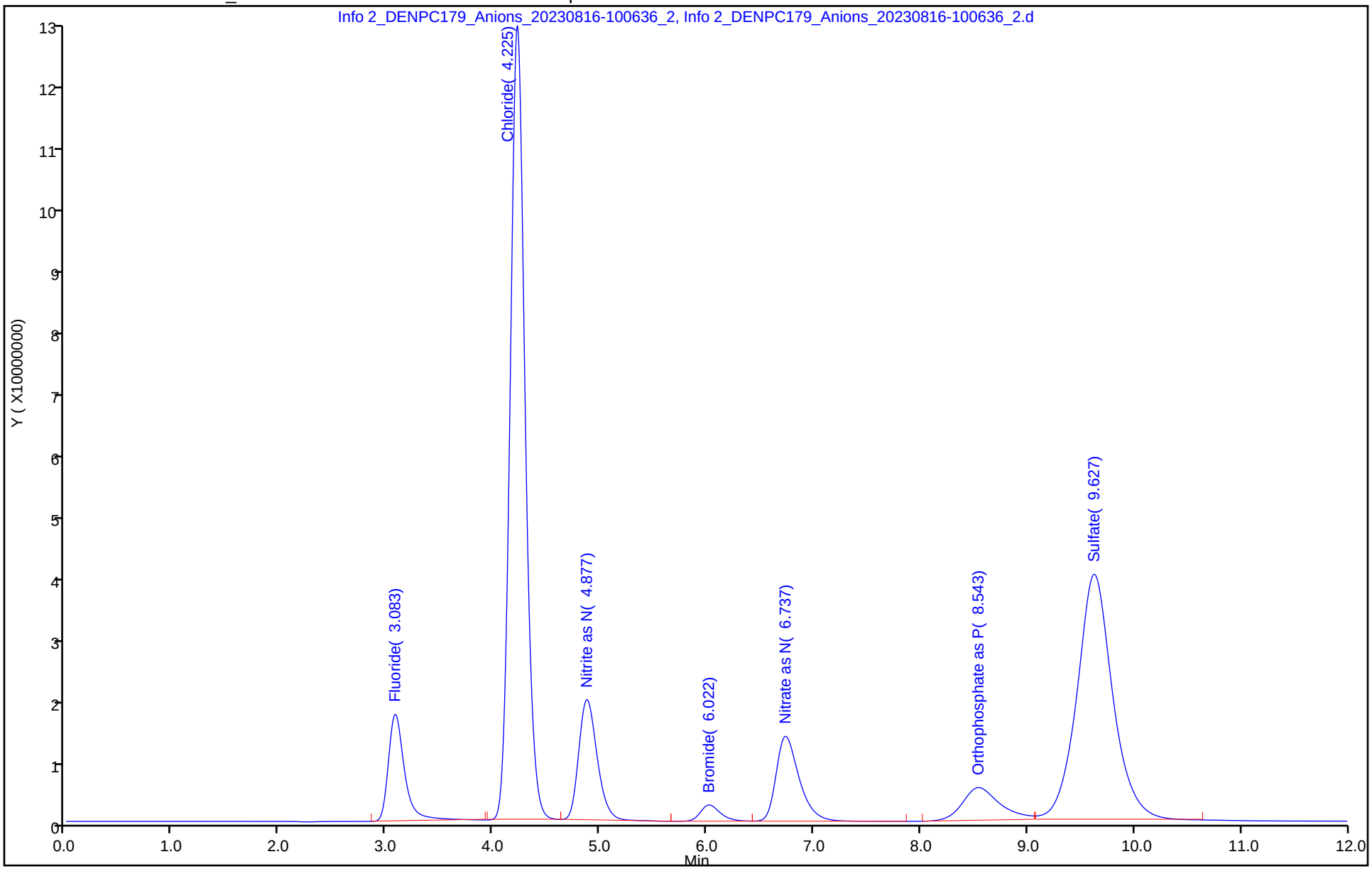
Reagents:

IC Cal low_00722 Amount Added: 0.80 Units: mL
IC CAL cl/so4_00494 Amount Added: 2.40 Units: mL

Report Date: 17-Aug-2023 10:41:30 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100636_2.d				
Injection Date:	16-Aug-2023 09:09:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD4			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 09:09:00 Instrument ID: WC_IonChrom10

Lims ID: STD4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

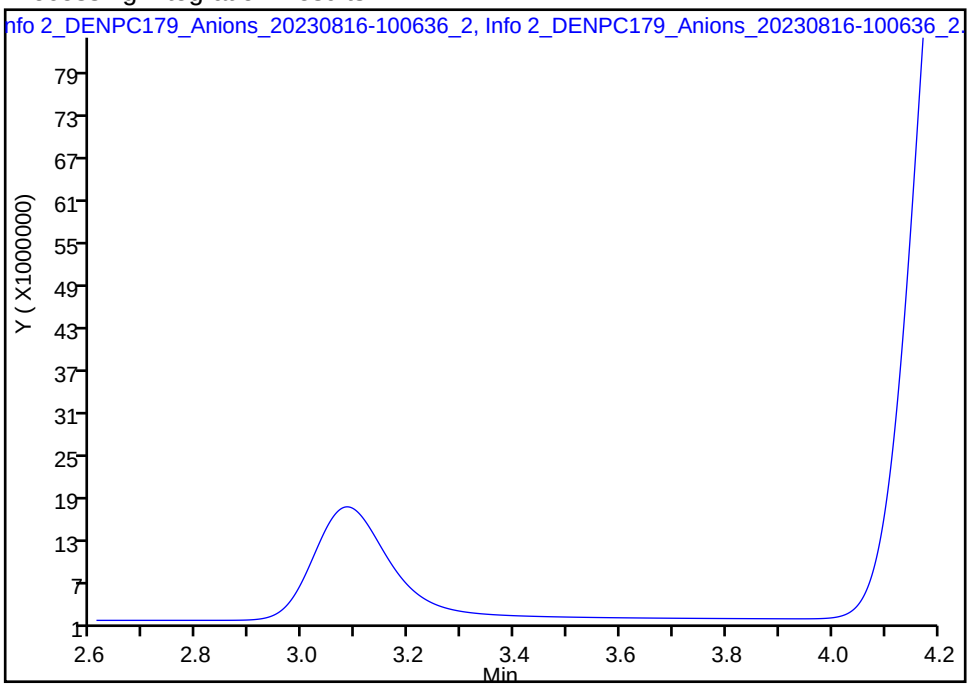
1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 3.08

Processing Integration Results



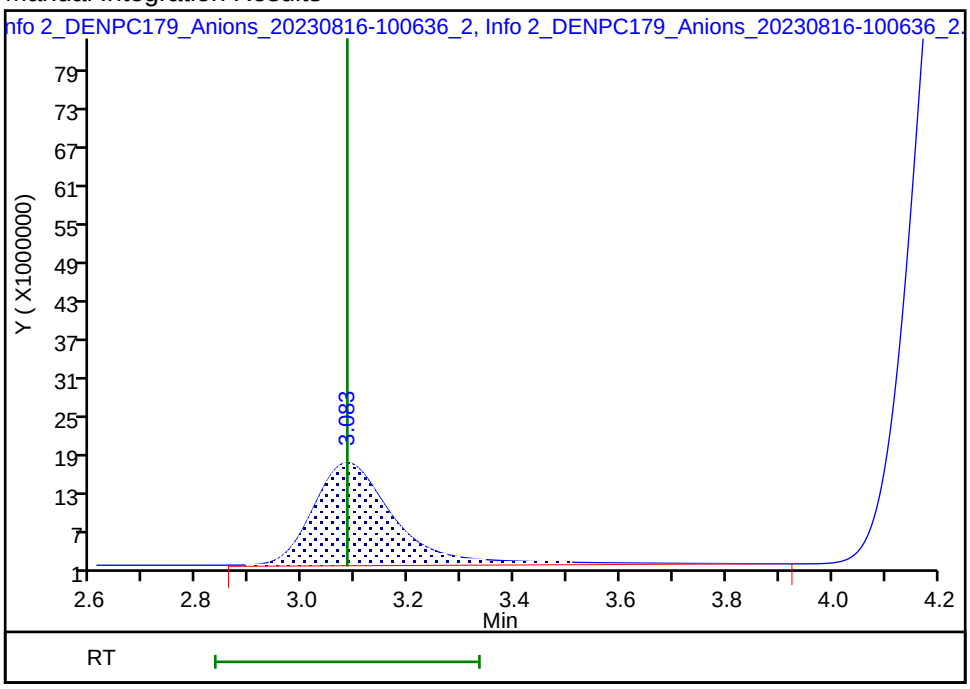
Manual Integration Results

RT: 3.08

Area: 171459973

Amount: 4.145113

Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:30:10 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 09:09:00 Instrument ID: WC_IonChrom10

Lims ID: STD4

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 4

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

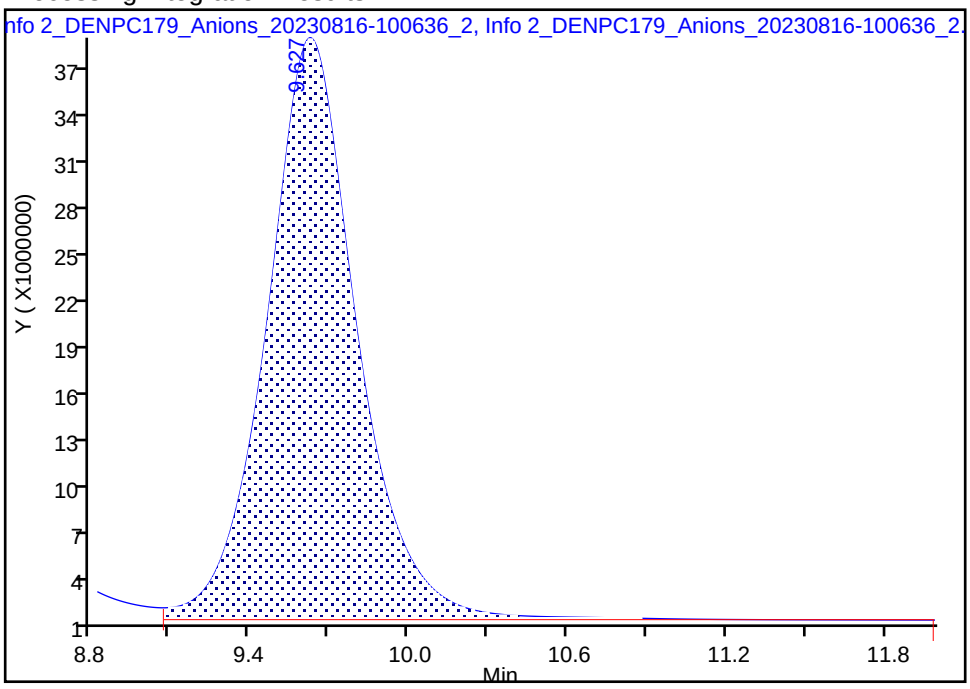
Column: Detector Info 2_091554_1

7 Sulfate, CAS: 14808-79-8

Signal: 1

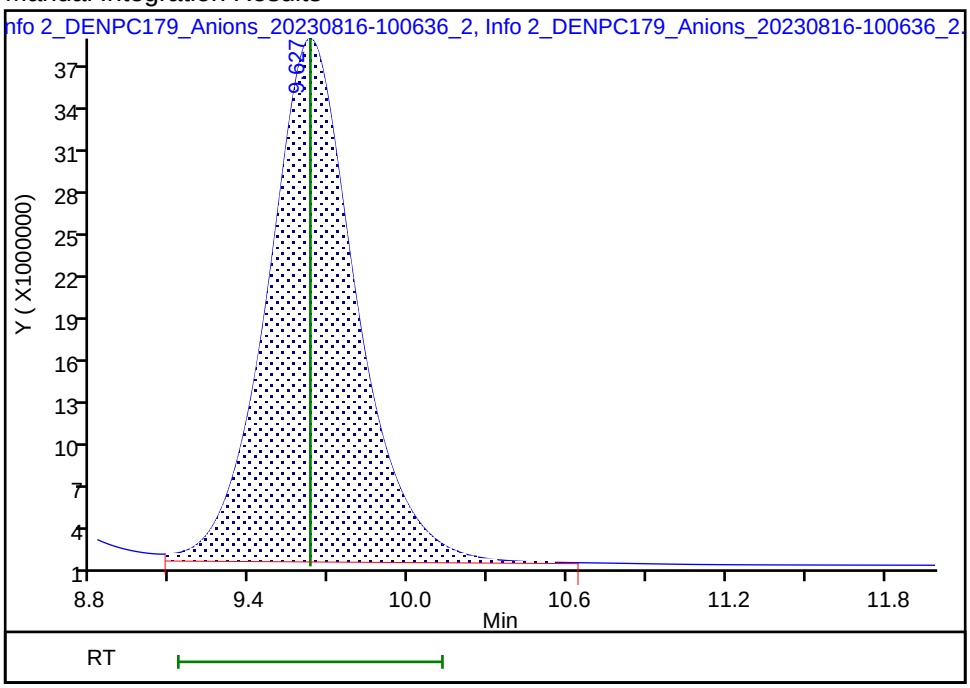
Processing Integration Results

RT: 9.63
Area: 888949000
Amount: 0
Amount Units: ug/ml



Manual Integration Results

RT: 9.63
Area: 859732703
Amount: 59.248956
Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:28:13 -06:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 16-Aug-2023 09:24:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-005
Misc. Info.: 280-0124540-005
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 10:41:30 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:30:04

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.088	3.088	0.000	330613515	8.00	7.95	Ma
2 Chloride	4.257	4.257	0.000	2318734502	120.0	120.1	
3 Nitrite as N	4.875	4.875	0.000	422833757	NC	NC	
4 Bromide	6.008	6.008	0.000	66462794	8.00	8.03	
5 Nitrate as N	6.717	6.717	0.000	392369909	NC	NC	
6 Orthophosphate as P	8.530	8.530	0.000	216637163	NC	NC	
7 Sulfate	9.610	9.610	0.000	1757412080	120.0	121.0	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

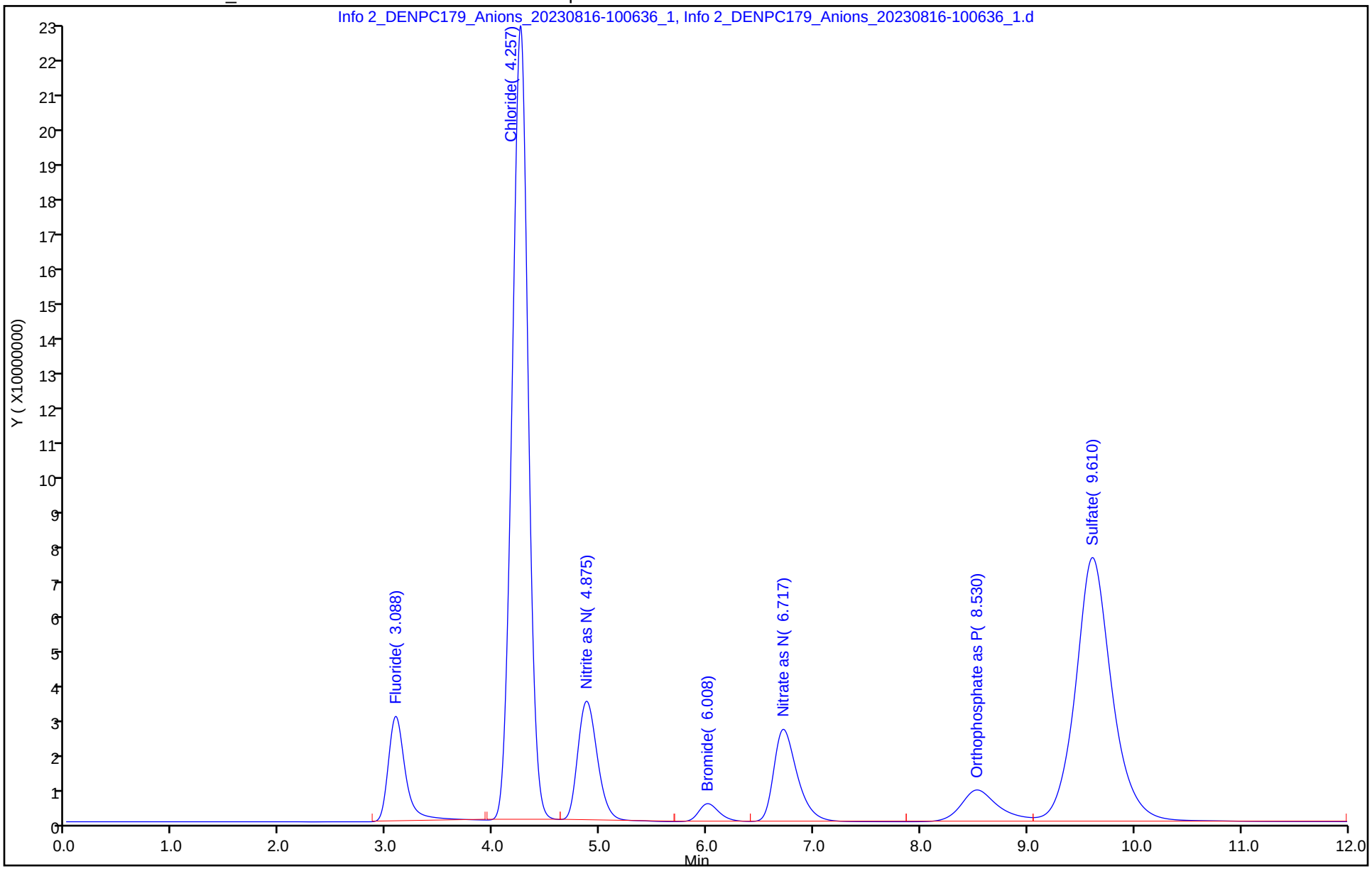
Reagents:

IC Cal low_00722 Amount Added: 1.60 Units: mL
IC CAL cl/so4_00494 Amount Added: 4.80 Units: mL

Report Date: 17-Aug-2023 10:41:31 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100636_1.d				
Injection Date:	16-Aug-2023 09:24:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD5			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 09:24:00 Instrument ID: WC_IonChrom10

Lims ID: STD5

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 5

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

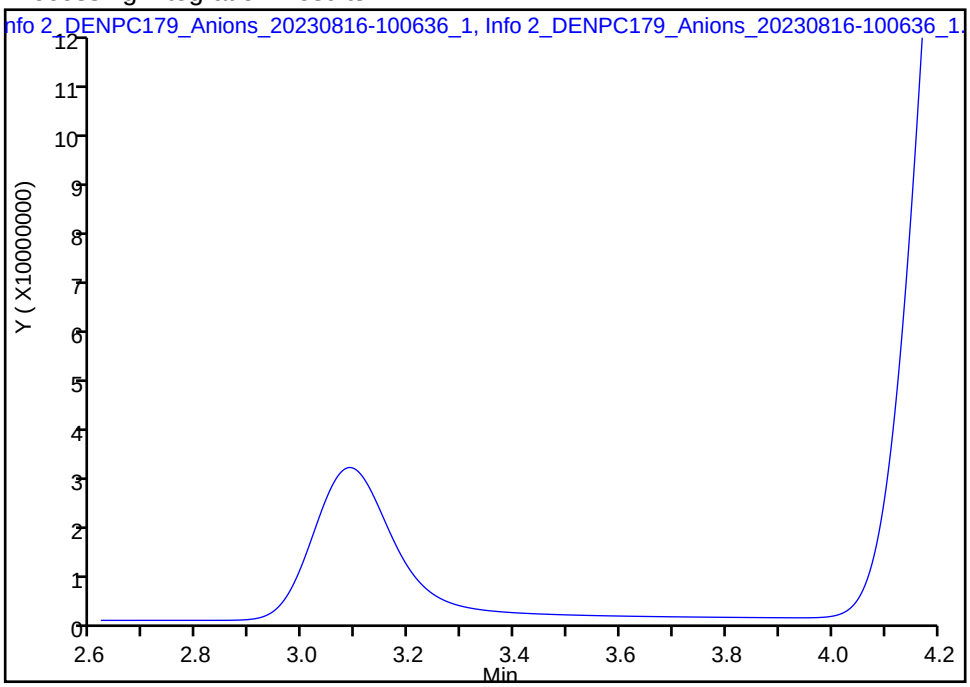
1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 3.09

Processing Integration Results



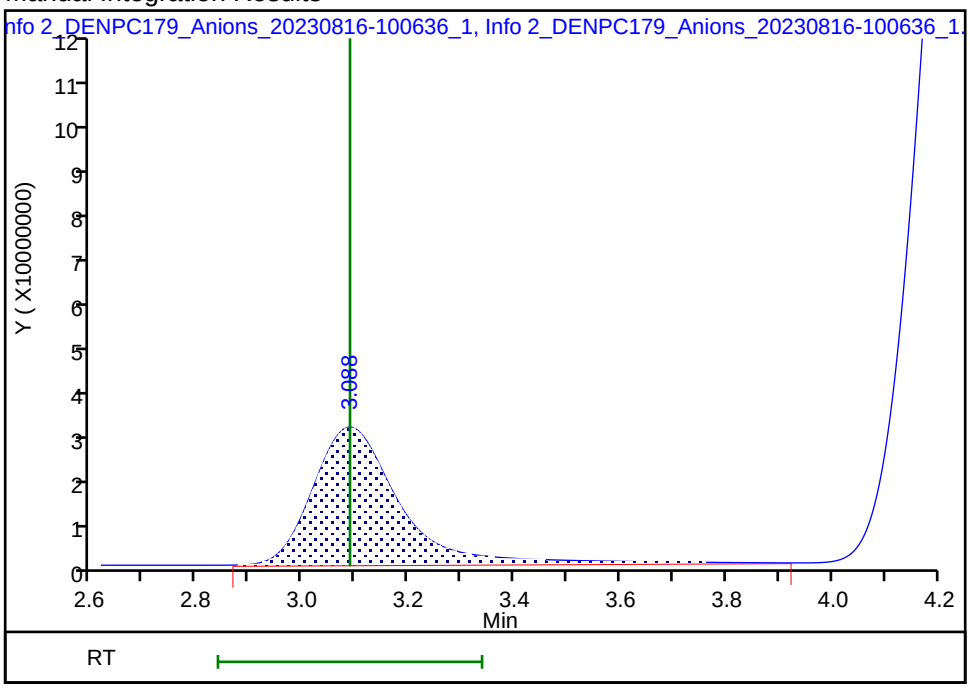
Manual Integration Results

RT: 3.09

Area: 330613515

Amount: 7.953769

Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:30:00 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100
Lims ID: STD6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-Aug-2023 09:39:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-006
Misc. Info.: 280-0124540-006
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 10:39:54 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 16-Aug-2023 10:29:55

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.085	3.088	-0.003	411861883	10.0	9.90	Ma
2 Chloride	4.292	4.257	0.035	3859357572	200.0	199.8	
3 Nitrite as N	4.877	4.875	0.002	519039593	NC	NC	
4 Bromide	5.998	6.008	-0.010	84169414	10.0	10.2	
5 Nitrate as N	6.708	6.717	-0.009	493796088	NC	NC	
6 Orthophosphate as P	8.523	8.530	-0.007	259679126	NC	NC	
7 Sulfate	9.588	9.610	-0.022	2909731694	200.0	200.3	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

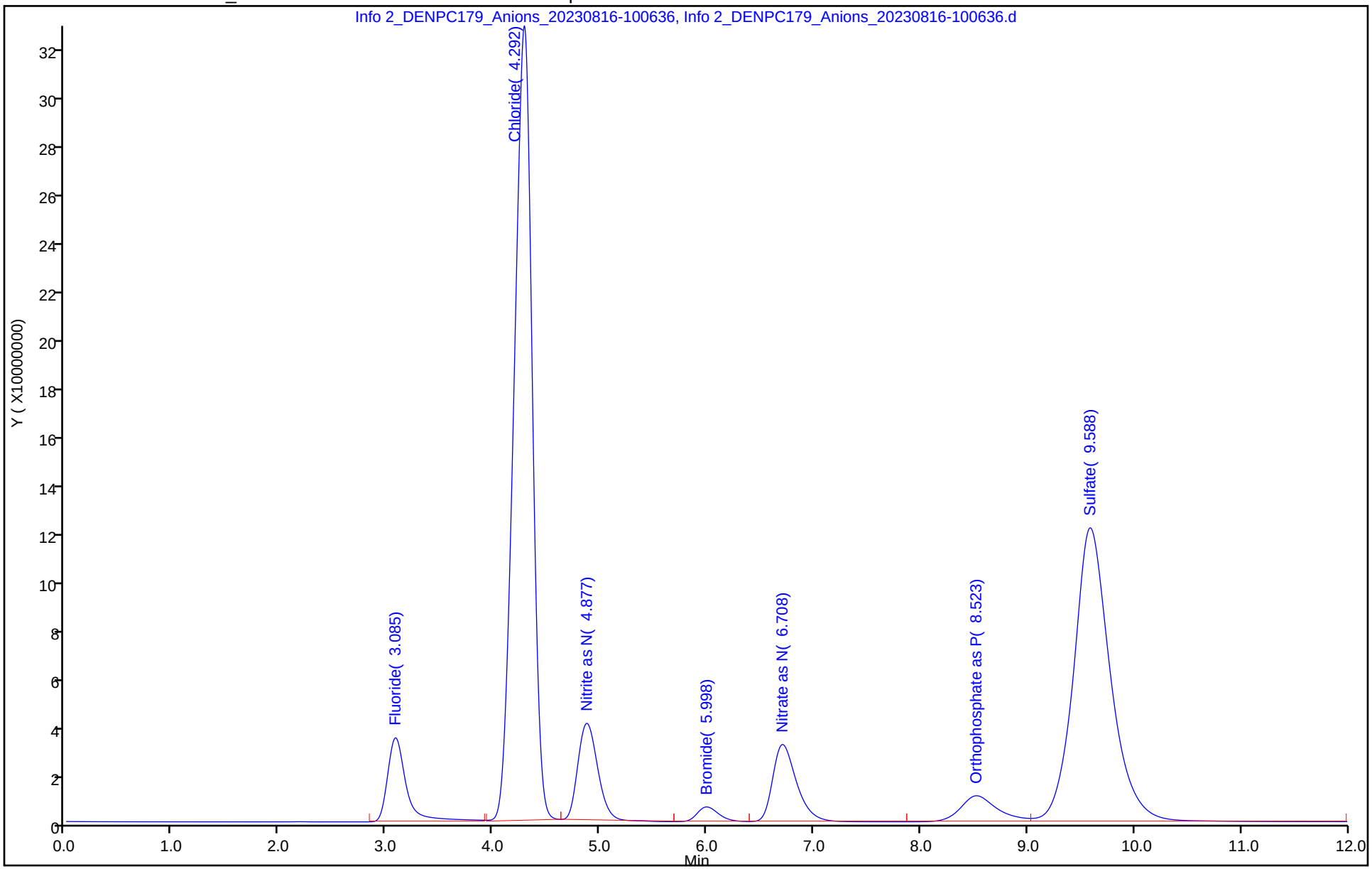
Reagents:

IC Cal low_00722 Amount Added: 2.00 Units: mL
IC CAL cl/so4_00494 Amount Added: 8.00 Units: mL

Report Date: 17-Aug-2023 10:39:55 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100636.d				
Injection Date:	16-Aug-2023 09:39:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	STD6			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Manual Integration/User Assign Peak Report

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Injection Date: 16-Aug-2023 09:39:00 Instrument ID: WC_IonChrom10

Lims ID: STD6

Client ID:

Operator ID: wetchemd ALS Bottle#: 0 Worklist Smp#: 6

Injection Vol: 5.0 ul Dil. Factor: 1.0000

Method: Anions_IC10 Limit Group: Wet - Anions 28D

Column: Detector Info 2_091554_1

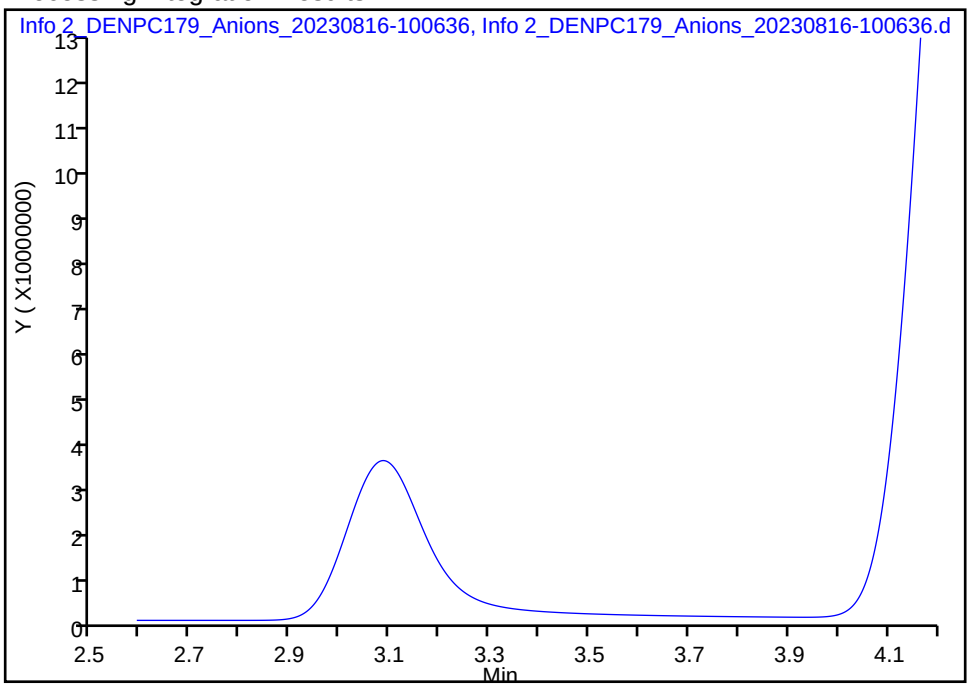
1 Fluoride, CAS: 16984-48-8

Signal: 1

Not Detected

Expected RT: 3.09

Processing Integration Results



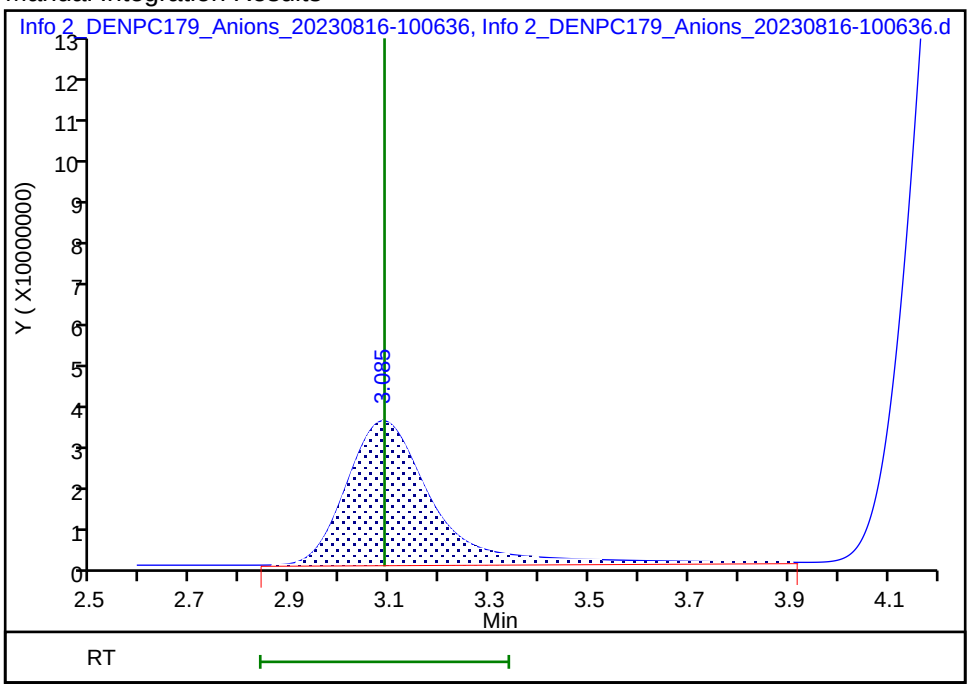
Manual Integration Results

RT: 3.09

Area: 411861883

Amount: 9.898100

Amount Units: ug/ml



Reviewer: LVW8, 16-Aug-2023 10:29:52 -06:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline Smoothing

Eurofins Environment Testing America
Worklist Report

Worklist Name: 08 15 23 CAL
Worklist Number: 124540
Instrument Name: WC_IonChrom10
Chrom Method: Anions_IC10
Injection Volume: 5.000
Units: ul
Analysis Type: Semi VOA
Batch Directory: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b
Upload Directory: \\CORPTALSAPP16\280-DN-RawData\WetChem\IonChrom10

Smp #	Lims ID	Smp Type	Ical Lvl	Dil Fact	Fract	Initial Vol/Wt	Vol/Wt Units	Sample Reagents	pH	Comment
1	# 1 STD1	IC	1	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
2	# 2 STD2	IC	2	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
3	# 3 STD3	IC	3	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
4	# 4 STD4	IC	4	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
5	# 5 STD5	IC	5	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
6	# 6 STD6	IC	6	1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
7	# 7 rtc	RTC		1.000	rectInjection	10.00	mL	IC LCS_01972		
8	# 8 icv	ICV		1.000	rectInjection	10.00	mL	IC ICV 5_00413 IC SO4 ICV_00024 Cl ICV Std_00006		
9	# 9 icb	ICB		1.000	rectInjection	10.00	mL			
10	#10 mrl	MRL		1.000	rectInjection	10.00	mL	IC Cal low_00722 IC CAL cl/so4_00494		
11	#11 lcs	LCS		1.000	rectInjection	10.00	mL	IC LCS_01972		
12	#12 lcsd	LCSD		1.000	rectInjection	10.00	mL	IC LCS_01972		
13	#13 mb	MB		1.000	rectInjection	10.00	mL			
14	#14 280-180347-D-18	Client		1.000	rectInjection	10.00	mL			
15	#15 280-180347-D-19	Client		1.000	rectInjection	10.00	mL			
16	#16 280-180347-D-20	Client		1.000	rectInjection	10.00	mL			
17	#17 280-179722-B-11-A	Client		1.000	rectInjection	10.00	mL			
18	#18 280-179722-B-11-A	Client		10.00	rectInjection	10.00	mL			
19	#19 280-179722-C-6-A	Client		1.000	rectInjection	10.00	mL			
20	#20 280-179722-C-6-A	Client		10.00	rectInjection	10.00	mL			
21	#21 280-180350-B-2	Client		1.000	rectInjection	10.00	mL			
22	#22 280-180350-B-3	Client		1.000	rectInjection	10.00	mL			
23	#23 280-180361-A-2	Client		1.000	rectInjection	10.00	mL			
24	#24 ccv	CCV		1.000	rectInjection	10.00	mL	IC LCS_01972		
25	#25 ccb	CCB		1.000	rectInjection	10.00	mL			
26	#26 280-180361-A-2 DU	DU		1.000	rectInjection	10.00	mL			
27	#27 280-180361-A-2 MS	MS		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
28	#28 280-180361-A-2 MSD	MSD		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
29	#29 280-180361-A-1	Client		10.00	rectInjection	10.00	mL			
30	#30 280-180349-B-2	Client		1.000	rectInjection	10.00	mL			
31	#31 280-180363-A-1	Client		1.000	rectInjection	10.00	mL			
32	#32 280-180362-A-1	Client		5.000	rectInjection	10.00	mL			
33	#33 280-180359-A-3	Client		1.000	rectInjection	10.00	mL			
34	#34 280-180362-A-2	Client		5.000	rectInjection	10.00	mL			
35	#35 280-180359-A-2	Client		2.000	rectInjection	10.00	mL			
36	#36 ccv	CCV		1.000	rectInjection	10.00	mL	IC LCS_01972		
37	#37 ccb	CCB		1.000	rectInjection	10.00	mL			
38	#38 280-180363-A-3	Client		1.000	rectInjection	10.00	mL			
39	#39 280-180363-A-2	Client		1.000	rectInjection	10.00	mL			
40	#40 280-180363-A-2 DU	DU		1.000	rectInjection	10.00	mL			
41	#41 280-180363-A-2 MS	MS		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
42	#42 280-180363-A-2 MSD	MSD		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
43	#43 280-180359-A-4	Client		1.000	rectInjection	10.00	mL			
44	#44 280-180349-B-3	Client		1.000	rectInjection	10.00	mL			
45	#45 280-180359-A-1	Client		1.000	rectInjection	10.00	mL			
46	#46 lcs	LCS		1.000	rectInjection	10.00	mL	IC LCS_01972		
47	#47 lcsd	LCSD		1.000	rectInjection	10.00	mL	IC LCS_01972		
48	#48 ccv	CCV		1.000	rectInjection	10.00	mL	IC LCS_01972		
49	#49 ccb	CCB		1.000	rectInjection	10.00	mL			
50	#50 mb	MB		1.000	rectInjection	10.00	mL			
51	#51 280-180355-A-1	Client		1.000	rectInjection	10.00	mL			
52	#52 280-180360-B-5	Client		2.000	rectInjection	10.00	mL			
53	#53 280-180362-A-4	Client		1.000	rectInjection	10.00	mL			
54	#54 280-180362-A-4 DU	DU		1.000	rectInjection	10.00	mL			

Smp #	Lims ID	Smp Type	Ical Lvl	Dil Fact	Fract	Initial Vol/Wt	Vol/Wt Units	Sample Reagents	pH	Comment
55	#55 280-180362-A-4 MS	MS		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
56	#56 280-180362-A-4 MSD	MSD		1.000	rectInjection	10.00	mL	ICMS/MSD WEEK_00831		
57	#57 280-180360-B-3	Client		1.000	rectInjection	10.00	mL			
58	#58 280-180360-B-1	Client		1.000	rectInjection	10.00	mL			
59	#59 ccv	CCV		1.000	rectInjection	10.00	mL	IC LCS_01972		
60	#60 ccb	CCB		1.000	rectInjection	10.00	mL			

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-Aug-2023 11:15:05
No.Compounds:7
Sublist: chrom-Anions_IC10*sub9
Limit Group: Wet - Anions

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:23:00 Worklist: 124540 Sample#: 1
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:38:00 Worklist: 124540 Sample#: 2
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:54:00 Worklist: 124540 Sample#: 3
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:09:00 Worklist: 124540 Sample#: 4
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:24:00 Worklist: 124540 Sample#: 5
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:39:00 Worklist: 124540 Sample#: 6

Start Cal Date: 16-Aug-2023 08:23:00 End Cal Date: 16-Aug-2023 09:39:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
47471195	51179524	53593060	54652809	52854220	51903959	-659672			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		52874248		
9494239	25589762	53593060	218611235	422833757	519039593				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
5 Nitrate as N				Signal: 1					
44046915	44259096	44959242	48028628	49046239	49379609	-1793758			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		49153639		
8809383	22129548	44959242	192114513	392369909	493796088				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
6 Orthophosphate as P				Signal: 1					
101865985	61427992	42106377	29713426	27079645	25967913	16373185			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		24899766		
M20373197	M30713996	M42106377	M118853705	216637163	259679126				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-Aug-2023 11:15:05
No.Compounds:7
Sublist: chrom-Anions_IC10*sub9
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:23:00 Worklist: 124540 Sample#: 1
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:38:00 Worklist: 124540 Sample#: 2
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:54:00 Worklist: 124540 Sample#: 3
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:09:00 Worklist: 124540 Sample#: 4
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:24:00 Worklist: 124540 Sample#: 5
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:39:00 Worklist: 124540 Sample#: 6

Start Cal Date: 16-Aug-2023 08:23:00 End Cal Date: 16-Aug-2023 09:39:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride				Signal: 1					
32469200	37215236	40803610	42864993	41326689	41186188	-1753153			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		41787315		
M6493840	M18607618	M40803610	M171459973	M330613515	M411861883				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
2 Chloride				Signal: 1					
16343527	17656926	18478080	19312060	19322788	19296788	-3421991			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		19331335		
16343527	44142315	92390398	1158723576	2318734502	3859357572				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
4 Bromide				Signal: 1					
11065780	8675128	7960626	8036663	8307849	8416941	361716			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		8232908		
2213156	4337564	7960626	32146652	66462794	84169414				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
7 Sulfate				Signal: 1					
16127136	13095082	12454383	14328878	14645101	14548658	-1219203			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		14531090		
M16127136	M32737705	M62271915	M859732703	1757412080	2909731694				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				

Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 16-Aug-2023 10:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-008
Misc. Info.: 280-0124540-008
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 11:15:05 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10(

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 17-Aug-2023 11:27:01

Start Cal Date: 16-Aug-2023 08:23:00
End Cal Date: 16-Aug-2023 09:39:00

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
1 Fluoride	4.00	3.60	*-10.0	10.0	90.0	
2 Chloride	80.0	84.0	5.0	10.0	105.0	
4 Bromide	4.00	3.88	-3.1	10.0	96.9	
7 Sulfate	80.0	81.1	1.3	10.0	101.3	

Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10				
Lims ID:	icv				
Client ID:					
Sample Type:	ICV				
Inject. Date:	16-Aug-2023 10:08:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0124540-008				
Misc. Info.:	280-0124540-008				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:					
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m				
Limit Group:	Wet - Anions				
Last Update:	17-Aug-2023 11:27:17	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10(				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1649				
First Level Reviewer: LVW8		Date:	17-Aug-2023 11:27:17		
Start Cal Date:	16-Aug-2023 08:23:00				
End Cal Date:	16-Aug-2023 09:39:00				

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
3 Nitrite as N	4.00	4.14	3.5	10.0	103.5	
5 Nitrate as N	4.00	3.95	-1.2	10.0	98.8	
6 Orthophosphate as	4.00	4.21	5.3	10.0	105.3	

phenova™ | A Phenomenex® Company
Certified Reference Materials

6390 Joyce Drive
100
Golden, CO 80403

Phone 303-940-0033
Fax 866-283-0269
www.phenova.com

Soil / Hazardous Waste PT Concentration Ranges and PTRLs

PTRL TNI Proficiency Testing Reporting Limits (PTRLs) are provided as guidance to laboratories analyzing TNI PT samples. At a minimum, the laboratory should use a method that is sensitive enough to generate quantitative results at the PTRLs shown. (REF: TNI PT FOT Tables)

NA Not Applicable (NA) has been applied to analytes where a PTRL is not applicable and to state specific analytes that have not had a PTRL determined by the applicable accrediting agency.

Anions

NELAC Code	Analyte Name	Units	Concentration Range	PTRL
1540	Bromide	mg/kg	10.0 - 100	1.00
1575	Chloride	mg/kg	200 - 1000	20.0
1730	Fluoride	mg/kg	25.0 - 500	2.50
1810	Nitrate as N	mg/kg	25.0 - 500	2.50
2000	Sulfate	mg/kg	25.0 - 2000	2.50
1870	Orthophosphate as P	mg/kg	25.0 - 500	NA

phenova™ | A Phenomenex® Company
Certified Reference Materials

6390 Joyce Drive
100
Golden, CO 80403

Phone 303-940-0033
Fax 866-283-0269
www.phenova.com

Instructions for Soil (HW) - Anions

SAMPLE DESCRIPTION

- Provided as a 40 g pre-spiked soil matrix in a 2 oz glass jar.
- This standard can be stored at room temperature (20 - 25° C).

GENERAL INFORMATION

- This standard is pre-spiked and ready to use,
- This standard is pre-dried so percent moisture is 0%.
- The standard will contain the analytes within the required concentration range.
- Store any remaining standard at room temperature (20 - 25° C).
- It is recommended to save any remaining standard until final reports have been sent.

ADDITIONAL INFORMATION

- This standard was designed for use with deionized water extraction technique.
- Due to potential settling during shipping, homogenize this standard before taking an aliquot.

INSTRUCTIONS

- This standard is pre-spiked and ready to use.
- Thoroughly mix the standard prior to removing an aliquot.
- Extract an aliquot of the sample and analyze by your normal procedure.
- Report result in mg/kg.

Please take all necessary safety precautions when handling this product. Phenova products are intended for use by laboratory professionals only and may be hazardous. Buyer/user shall ensure sufficient knowledge, training, facilities and skills necessary to safely handle and store products provided. Material Safety Data Sheets (MSDS) for all Phenova products are available upon request.

eurofins | Environment Testing TestAmerica

Performance Test (PT) Preparation Form

Preparation

Job #: 280-179722 Sample # 6

Method: ~~300~~ MEC 9056 48Hr/28D

Sample Name (*from vial or PT instructions*): Soil (HW) - Anions

Standard Lot #(s) or Vial #(s) (If Applicable): 7093-08

Analyst Review of PT Instructions by (Initials): MEC (Date): 8/16/23

PT Sample Type: _____ Ampoule ____ Whole volume

Volume or Weight of PT Sample Used : 10 (Units): G

Prepared Volume of diluted PT Sample (If reagent blank spiked from ampoule):

_____(Units):_____

2nd Analyst Witness/Review of PT Instructions by (Initials): mp (Date): 8-16-23
(This 2nd level review is to be done at the time of PT preparation)

Include a copy of the PT instructions with this form, and include both in the batch folder.

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-104
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 16-Aug-2023 10:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-008
Misc. Info.: 280-0124540-008
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 11:45:40 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 17-Aug-2023 11:27:17

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.078	3.078	0.000	148600573	4.00	3.60	Ma
2 Chloride	4.238	4.238	0.000	1620371327	80.0	84.0	
3 Nitrite as N	4.873	4.873	0.000	218249168	NC	NC	
4 Bromide	6.012	6.012	0.000	32280328	4.00	3.88	
5 Nitrate as N	6.723	6.723	0.000	192424246	NC	NC	
6 Orthophosphate as P	8.545	8.545	0.000	121270311	NC	NC	
7 Sulfate	9.628	9.628	0.000	1176664399	80.0	81.1	

QC Flag Legend

Processing Flags
NC - Not Calibrated
Review Flags
M - Manually Integrated
a - User Assigned ID

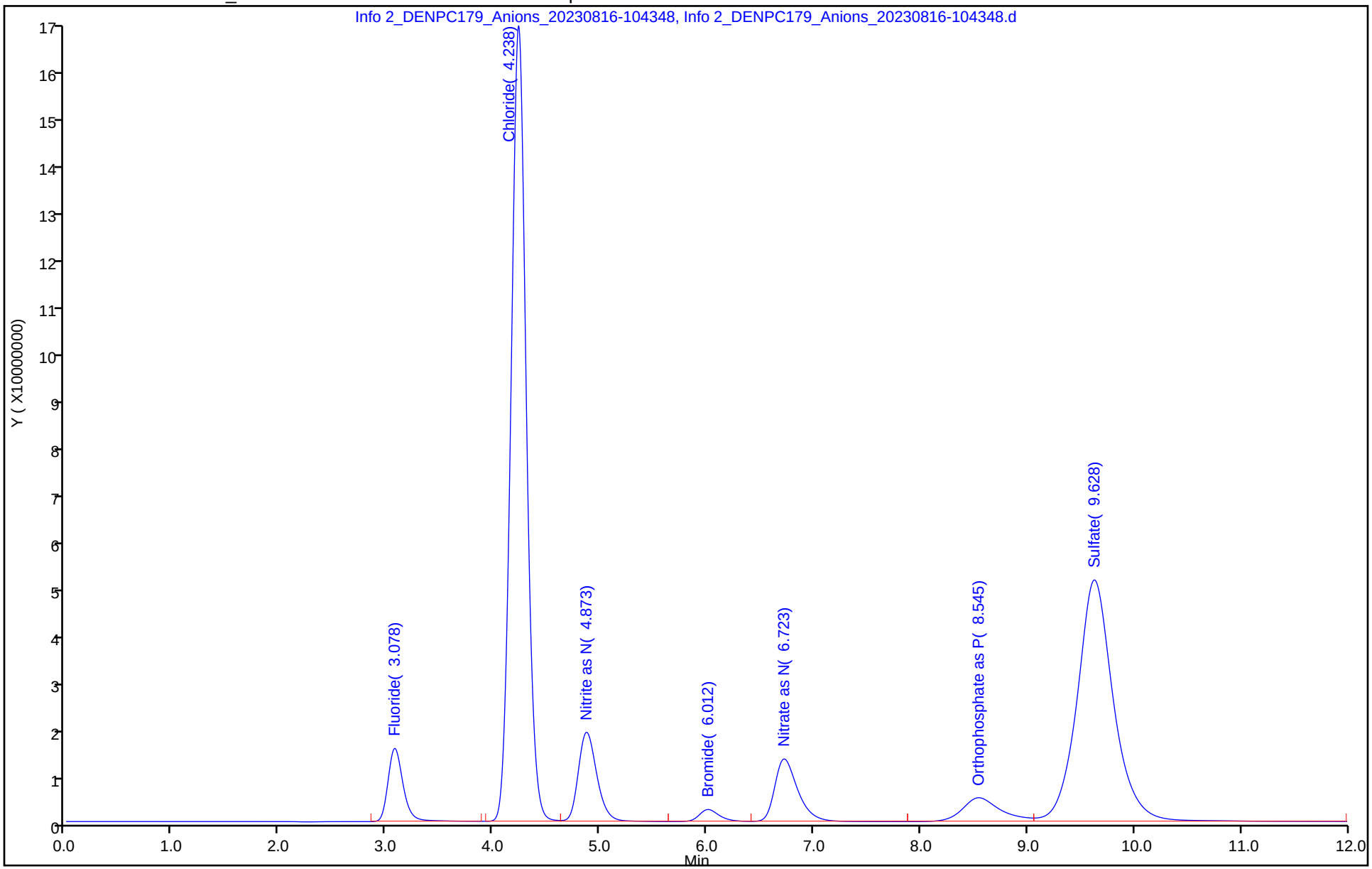
Reagents:

IC ICV 5_00413	Amount Added:	0.80	Units: mL
IC SO4 ICV_00024	Amount Added:	0.80	Units: mL
Cl ICV Std_00006	Amount Added:	0.80	Units: mL

Report Date: 17-Aug-2023 11:45:40 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-104348.d				
Injection Date:	16-Aug-2023 10:08:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	icv			Worklist Smp#:	8
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-104
Lims ID: icb
Client ID:
Sample Type: ICB
Inject. Date: 16-Aug-2023 10:23:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-009
Misc. Info.: 280-0124540-009
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 11:45:40 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.200	4.238	-0.038	264090		0.1907	
3 Nitrite as N	4.857	4.873	-0.016	208499		NC	
4 Bromide	6.118	6.012	0.106	349466		-0.001488	
5 Nitrate as N		6.723				ND	
6 Orthophosphate as P	8.595	8.545	0.050	6392990		NC	
7 Sulfate	9.723	9.628	0.095	5568928		0.4671	

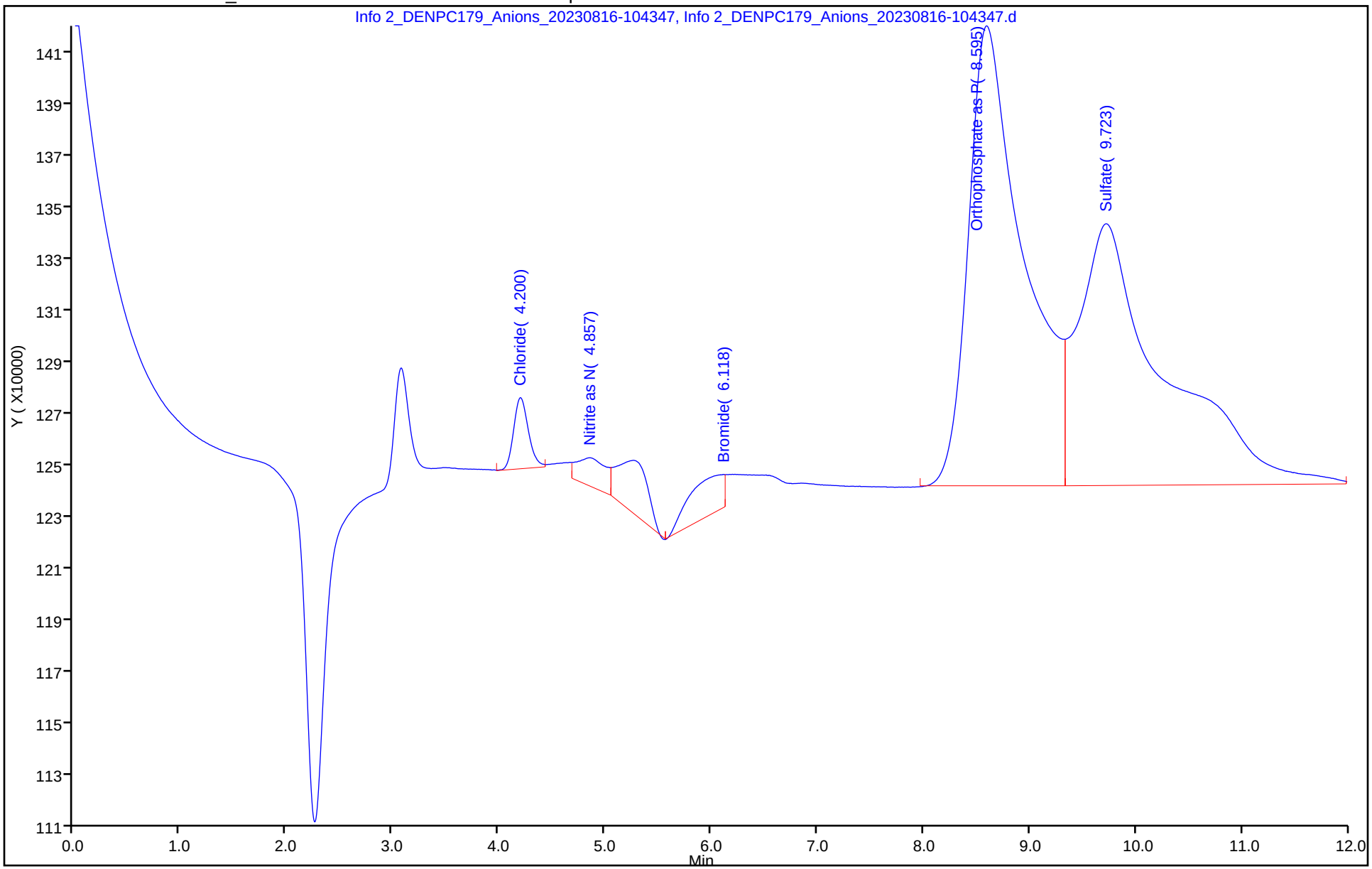
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 17-Aug-2023 11:45:41 Chrom Revision: 2.3 01-Aug-2023 10:44:40

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-104347.d				
Injection Date:	16-Aug-2023 10:23:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	icb			Worklist Smp#:	9
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Environment Testing
Worklist Report

Worklist Name: 10 05 23 Worklist Number: 126193
Instrument Name: WC_IonChrom10 Chrom Method: Anions_IC10
Injection Volume: 5.000 Units: ul
Analysis Type: Semi VOA
Batch Directory: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b
Upload Directory: \\CORPTALSAPP16\280-DN-RawData\WetChem\IonChrom10

Smp #	Lims ID	Smp Type	Dil Fact	Fract	Initial Vol/Wt	Vol/Wt Units	Sample Reagents	pH	Comment
1	# 1 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
2	# 2 ccb	CCB	1.000	irectInjection	10.00	mL			
3	# 3 mrl	MRL	1.000	irectInjection	10.00	mL	IC Cal low_00732 IC CAL cl/so4_00502		
4	# 4 lcs	LCS	1.000	irectInjection	10.00	mL	IC LCS_01981		
5	# 5 lcsd	LCSD	1.000	irectInjection	10.00	mL	IC LCS_01981		
6	# 6 mb	MB	1.000	irectInjection	10.00	mL			
7	# 7 280-182443-E-2	Client	1.000	irectInjection	10.00	mL			
8	# 8 280-182443-E-2 DU	DU	1.000	irectInjection	10.00	mL			
9	# 9 280-182443-E-2 MS	MS	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
10	#10 280-182443-E-2 MSD	MSD	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
11	#11 280-182435-I-2	Client	1.000	irectInjection	10.00	mL			
12	#12 280-182437-B-2	Client	1.000	irectInjection	10.00	mL			
13	#13 280-182443-E-4	Client	1.000	irectInjection	10.00	mL			
14	#14 280-182435-I-4	Client	1.000	irectInjection	10.00	mL			
15	#15 280-182431-B-1	Client	1.000	irectInjection	10.00	mL			
16	#16 280-182434-B-6	Client	1.000	irectInjection	10.00	mL			
17	#17 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
18	#18 ccb	CCB	1.000	irectInjection	10.00	mL			
19	#19 280-182437-B-3	Client	1.000	irectInjection	10.00	mL			
20	#20 280-182441-F-1	Client	1.000	irectInjection	10.00	mL			
21	#21 280-182441-F-2	Client	1.000	irectInjection	10.00	mL			
22	#22 280-182441-F-3	Client	2.000	irectInjection	10.00	mL			
23	#23 280-182441-F-4	Client	2.000	irectInjection	10.00	mL			
24	#24 280-182434-A-2	Client	2.000	irectInjection	10.00	mL			
25	#25 280-182441-F-5	Client	2.000	irectInjection	10.00	mL			
26	#26 280-182432-F-1	Client	1.000	irectInjection	10.00	mL			
27	#27 280-182441-F-6	Client	2.000	irectInjection	10.00	mL			
28	#28 280-182441-F-6 DU	DU	2.000	irectInjection	10.00	mL			
29	#29 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
30	#30 ccb	CCB	1.000	irectInjection	10.00	mL			
31	#31 280-182441-F-6 MS	MS	2.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
32	#32 280-182441-F-6 MSD	MSD	2.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
33	#33 280-182441-F-7	Client	2.000	irectInjection	10.00	mL			
34	#34 280-182441-F-9	Client	2.000	irectInjection	10.00	mL			
35	#35 280-182434-B-5	Client	1.000	irectInjection	10.00	mL			
36	#36 280-182435-I-6	Client	1.000	irectInjection	10.00	mL			
37	#37 lcs	LCS	1.000	irectInjection	10.00	mL	IC LCS_01981		
38	#38 lcsd	LCSD	1.000	irectInjection	10.00	mL	IC LCS_01981		
39	#39 mb	MB	1.000	irectInjection	10.00	mL			
40	#40 280-182441-F-8	Client	1.000	irectInjection	10.00	mL			
41	#41 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
42	#42 ccb	CCB	1.000	irectInjection	10.00	mL			
43	#43 280-182441-F-8 DU	DU	1.000	irectInjection	10.00	mL			
44	#44 280-182441-F-8 MS	MS	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
45	#45 280-182441-F-8 MSD	MSD	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
46	#46 280-182437-B-1	Client	1.000	irectInjection	10.00	mL			
47	#47 280-182443-E-7	Client	1.000	irectInjection	10.00	mL			
48	#48 280-182434-A-3	Client	1.000	irectInjection	10.00	mL			
49	#49 280-182431-A-2	Client	1.000	irectInjection	10.00	mL			
50	#50 280-182436-A-3	Client	1.000	irectInjection	10.00	mL			
51	#51 280-182443-E-8	Client	1.000	irectInjection	10.00	mL			
52	#52 280-182434-B-4	Client	1.000	irectInjection	10.00	mL			
53	#53 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
54	#54 ccb	CCB	1.000	irectInjection	10.00	mL			
55	#55 280-182431-B-3	Client	1.000	irectInjection	10.00	mL			
56	#56 280-182436-A-5	Client	1.000	irectInjection	10.00	mL			
57	#57 280-182438-D-2	Client	1.000	irectInjection	10.00	mL			
58	#58 280-182438-D-3	Client	1.000	irectInjection	10.00	mL			
59	#59 280-182438-D-4	Client	1.000	irectInjection	10.00	mL			
60	#60 280-182438-D-4 DU	DU	1.000	irectInjection	10.00	mL			
61	#61 280-182438-D-4 MS	MS	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		
62	#62 280-182438-D-4 MSD	MSD	1.000	irectInjection	10.00	mL	ICMS/MSD WEEK_00839		

Smp #	Lims ID	Smp Type	Dil Fact	Fract	Initial Vol/Wt	Vol/Wt Units	Sample Reagents	pH	Comment
63	#63 280-182438-D-5	Client	1.000	irectInjection	10.00	mL			
64	#64 280-182438-E-6	Client	1.000	irectInjection	10.00	mL			
65	#65 ccv	CCV	1.000	irectInjection	10.00	mL	IC LCS_01981		
66	#66 ccb	CCB	1.000	irectInjection	10.00	mL			

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-Aug-2023 11:15:05
No.Compounds:7
Sublist: chrom-Anions_IC10*sub9
Limit Group: Wet - Anions

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:23:00 Worklist: 124540 Sample#: 1
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:38:00 Worklist: 124540 Sample#: 2
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:54:00 Worklist: 124540 Sample#: 3
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:09:00 Worklist: 124540 Sample#: 4
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:24:00 Worklist: 124540 Sample#: 5
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:39:00 Worklist: 124540 Sample#: 6

Start Cal Date: 16-Aug-2023 08:23:00 End Cal Date: 16-Aug-2023 09:39:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 3

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
3 Nitrite as N				Signal: 1					
47471195	51179524	53593060	54652809	52854220	51903959	-659672			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		52874248		
9494239	25589762	53593060	218611235	422833757	519039593				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
5 Nitrate as N				Signal: 1					
44046915	44259096	44959242	48028628	49046239	49379609	-1793758			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		49153639		
8809383	22129548	44959242	192114513	392369909	493796088				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
6 Orthophosphate as P				Signal: 1					
101865985	61427992	42106377	29713426	27079645	25967913	16373185			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		24899766		
M20373197	M30713996	M42106377	M118853705	216637163	259679126				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				

Eurofins Environment Testing America
Initial Calibration Report

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Instrument: WC_IonChrom10 Lims Location: 280
Lock State: Initial Calib Locked Cpnd Order: Retention Time
Integrator: Falcon Last Modified: 17-Aug-2023 11:15:05
No.Compounds:7
Sublist: chrom-Anions_IC10*sub9
Limit Group: Wet - Anions 28D

Detectors

Detector: 1, Info 2_091554_1
Data Type: ic Spec Type: none
Supports Extracted Chromatograms: False
Run Time: 0.000-14.933 No. Points: 7196

Calibration File Names

Level: 1 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:23:00 Worklist: 124540 Sample#: 1
Level: 2 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:38:00 Worklist: 124540 Sample#: 2
Level: 3 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 08:54:00 Worklist: 124540 Sample#: 3
Level: 4 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:09:00 Worklist: 124540 Sample#: 4
Level: 5 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:24:00 Worklist: 124540 Sample#: 5
Level: 6 \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10063
Inj Date: 16-Aug-2023 09:39:00 Worklist: 124540 Sample#: 6

Start Cal Date: 16-Aug-2023 08:23:00 End Cal Date: 16-Aug-2023 09:39:00

Individual Compound Calibration Parameters

Quant Method: ESTD RF Calibration: Replace
Rule Name: Linear1 Curve: Linear Weighting: Conc
Origin: None Error: raw_COD Error Limit: 1.00
RF %Dif: 0.0 SPCC Limit: 0.0 CCC Limit: 0.0
Dependent Variable: Resp

Number of Compounds: 4

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error

RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	RF/Amt(Lvl) Response WL(Smp)	b	m1	m2	Error
1 Fluoride				Signal: 1					
32469200	37215236	40803610	42864993	41326689	41186188	-1753153			1.000
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		41787315		
M6493840	M18607618	M40803610	M171459973	M330613515	M411861883				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
2 Chloride				Signal: 1					
16343527	17656926	18478080	19312060	19322788	19296788	-3421991			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		19331335		
16343527	44142315	92390398	1158723576	2318734502	3859357572				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
4 Bromide				Signal: 1					
11065780	8675128	7960626	8036663	8307849	8416941	361716			0.999
0.200000(1)	0.500000(2)	1.0000 (3)	4.0000 (4)	8.0000 (5)	10.0 (6)		8232908		
2213156	4337564	7960626	32146652	66462794	84169414				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				
7 Sulfate				Signal: 1					
16127136	13095082	12454383	14328878	14645101	14548658	-1219203			1.000
1.0000 (1)	2.5000 (2)	5.0000 (3)	60.0 (4)	120.0 (5)	200.0 (6)		14531090		
M16127136	M32737705	M62271915	M859732703	1757412080	2909731694				
124540(1)	124540(2)	124540(3)	124540(4)	124540(5)	124540(6)				

Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 16-Aug-2023 10:08:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0124540-008
Misc. Info.: 280-0124540-008
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist:

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 17-Aug-2023 11:15:05 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10(

Column 1 : Det: Info 2_091554_1
Process Host: CTX1649

First Level Reviewer: LVW8 Date: 17-Aug-2023 11:27:01

Start Cal Date: 16-Aug-2023 08:23:00
End Cal Date: 16-Aug-2023 09:39:00

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
1 Fluoride	4.00	3.60	*-10.0	10.0	90.0	
2 Chloride	80.0	84.0	5.0	10.0	105.0	
4 Bromide	4.00	3.88	-3.1	10.0	96.9	
7 Sulfate	80.0	81.1	1.3	10.0	101.3	

Preliminary Report

Eurofins Denver
ICV, ICal Verification Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10				
Lims ID:	icv				
Client ID:					
Sample Type:	ICV				
Inject. Date:	16-Aug-2023 10:08:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0124540-008				
Misc. Info.:	280-0124540-008				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:					
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Anions_IC10.m				
Limit Group:	Wet - Anions				
Last Update:	17-Aug-2023 11:27:17	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-10(				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1649				
First Level Reviewer:	LVW8	Date:	17-Aug-2023 11:27:17		
Start Cal Date:	16-Aug-2023 08:23:00				
End Cal Date:	16-Aug-2023 09:39:00				

Compound	Amount Added	Amount Detected	%Drift	Max. %Drift	%Rec	%Rec Limits
3 Nitrite as N	4.00	4.14	3.5	10.0	103.5	
5 Nitrate as N	4.00	3.95	-1.2	10.0	98.8	
6 Orthophosphate as	4.00	4.21	5.3	10.0	105.3	

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 05-Oct-2023 12:40:00 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-001
Misc. Info.: 280-0126193-001
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:07:17 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.227	4.230	-0.003	1905855682	100.0	98.8	
3 Nitrite as N	4.857	4.857	0.000	259552386	NC	NC	
4 Bromide	5.987	5.993	-0.006	39567672	5.00	4.76	
5 Nitrate as N	6.712	6.715	-0.003	231897441	NC	NC	
6 Orthophosphate as P	8.482	8.493	-0.011	170996115	NC	NC	
7 Sulfate	9.518	9.533	-0.015	1457346321	100.0	100.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

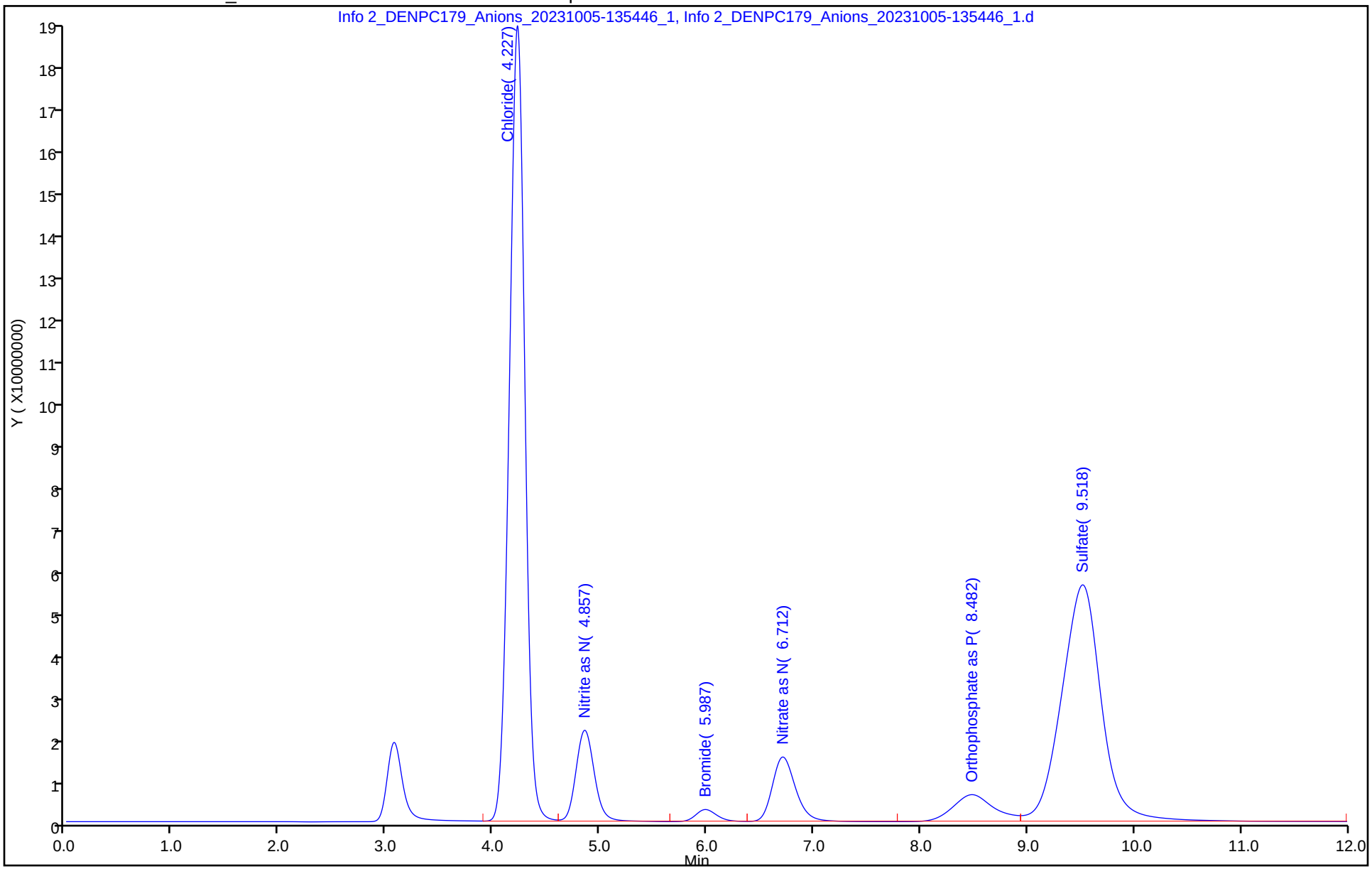
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:07:17 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135446_1.d				
Injection Date:	05-Oct-2023 12:40:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	05-Oct-2023 12:55:00	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-002				
Misc. Info.:	280-0126193-002				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:05:39	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.165	4.230	-0.065	25567		0.1783	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.582	8.493	0.089	16302204		NC	
7 Sulfate	9.642	9.533	0.109	11722981		0.8907	

QC Flag Legend

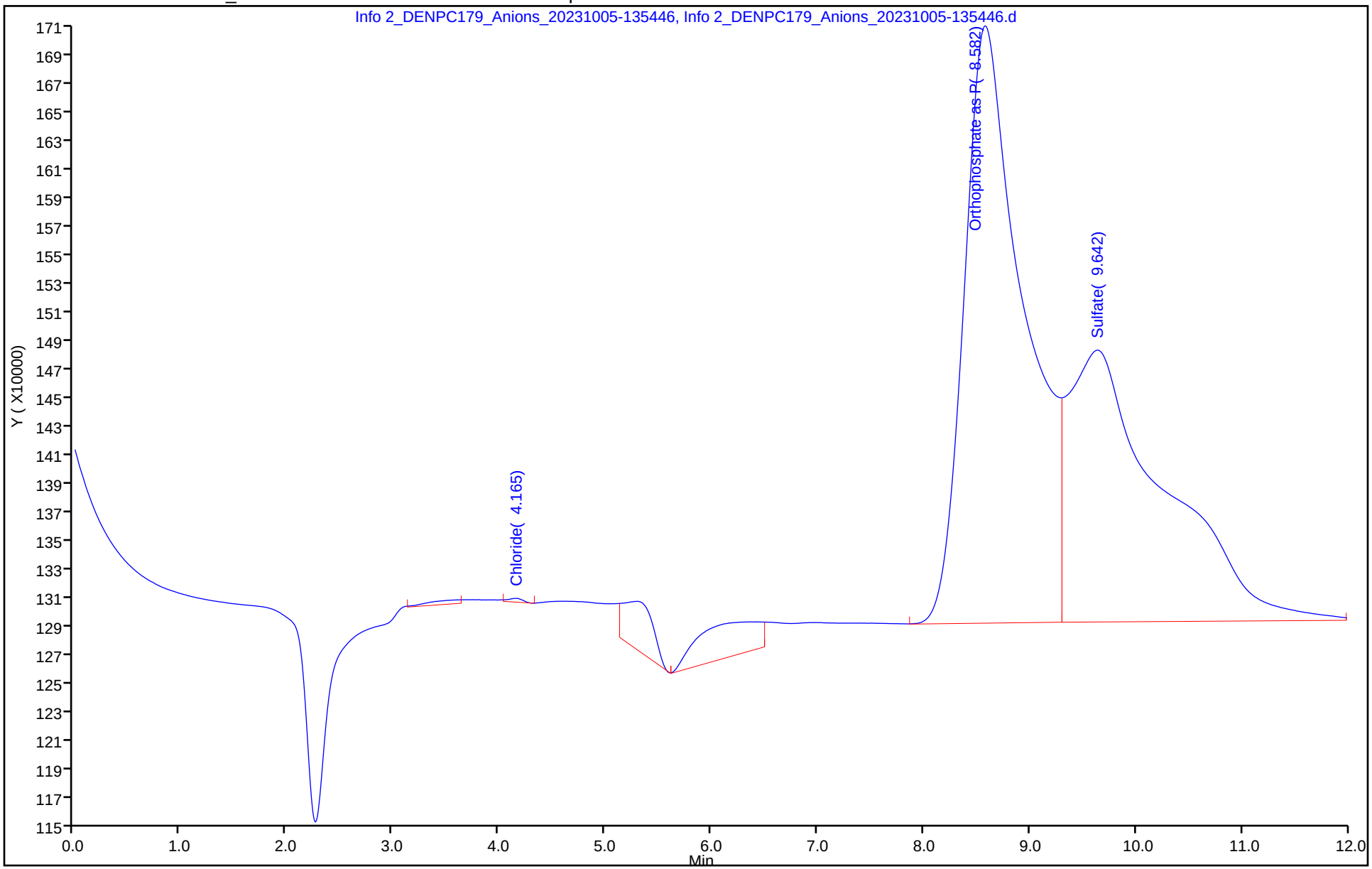
Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:05:40 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135446.d

Injection Date:	05-Oct-2023 12:55:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	2
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135
Lims ID: mrl
Client ID:
Sample Type: MRL
Inject. Date: 05-Oct-2023 13:10:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-003
Misc. Info.: 280-0126193-003
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:07:17 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.188	4.230	-0.042	93302890	5.00	5.00	
3 Nitrite as N	4.865	4.857	0.008	25643782	NC	NC	
4 Bromide	6.027	5.993	0.034	4624847	0.5000	0.5178	
5 Nitrate as N	6.772	6.715	0.057	22536002	NC	NC	
6 Orthophosphate as P	8.537	8.493	0.044	46216150	NC	NC	
7 Sulfate	9.553	9.533	0.020	93101511	5.00	6.49	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

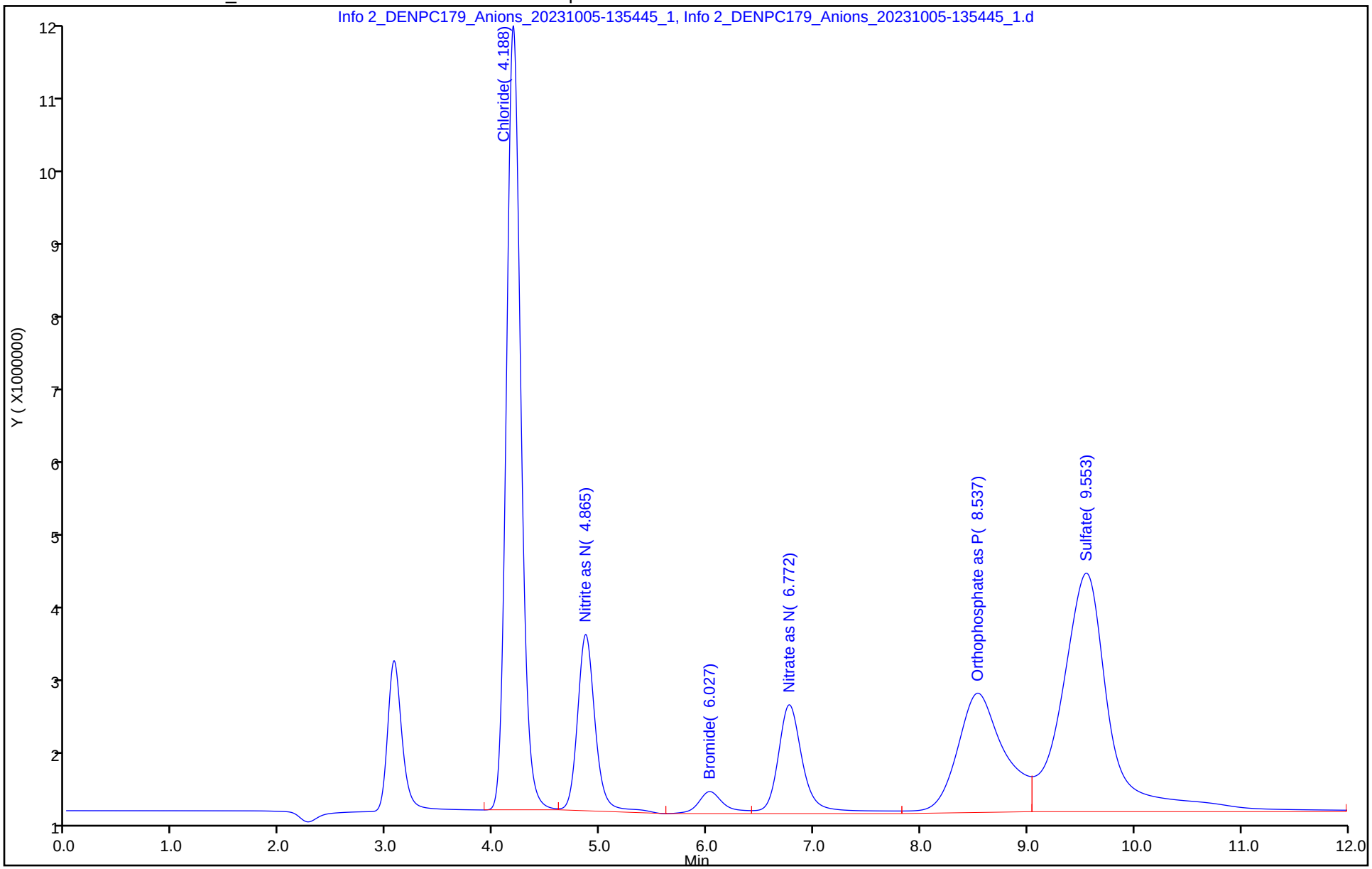
Reagents:

IC Cal low_00732 Amount Added: 0.10 Units: mL
IC CAL cl/so4_00502 Amount Added: 0.20 Units: mL

Report Date: 06-Oct-2023 12:07:18 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135445_1.d				
Injection Date:	05-Oct-2023 13:10:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	mrl			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 05-Oct-2023 13:25:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-004
Misc. Info.: 280-0126193-004
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:05:39 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.228	4.230	-0.002	1900171604	100.0	98.5	
3 Nitrite as N	4.857	4.857	0.000	260272210	NC	NC	
4 Bromide	5.993	5.993	0.000	39477069	5.00	4.75	
5 Nitrate as N	6.715	6.715	0.000	231242862	NC	NC	
6 Orthophosphate as P	8.490	8.493	-0.003	173584547	NC	NC	
7 Sulfate	9.528	9.533	-0.005	1453193635	100.0	100.1	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

Reagents:

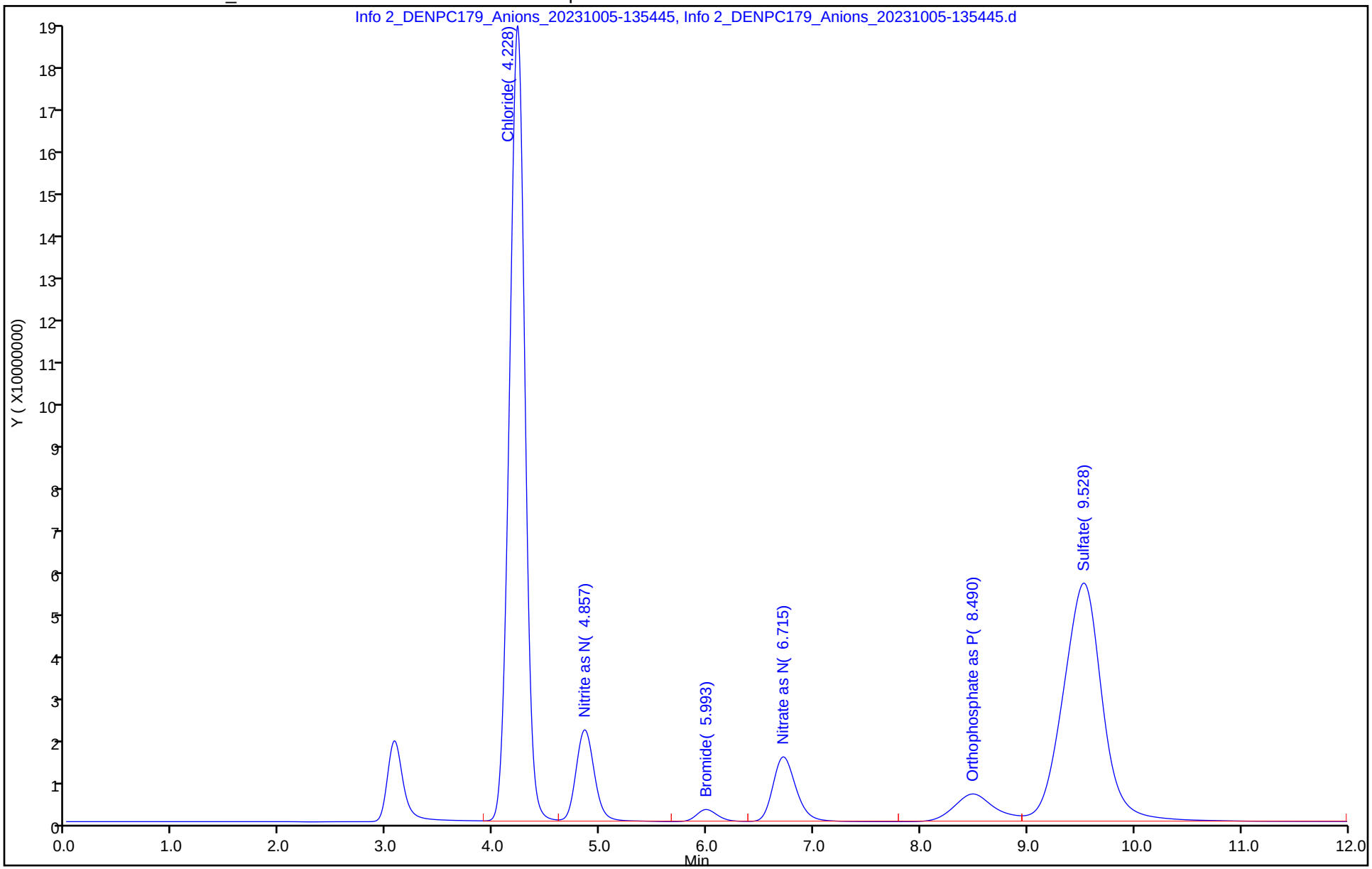
IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:05:41 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231005-135445.d

Injection Date:	05-Oct-2023 13:25:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	lcs			Worklist Smp#:	4
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 05-Oct-2023 13:40:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-005
Misc. Info.: 280-0126193-005
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:07:19 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.230	4.230	0.000	1903181679	100.0	98.6	
3 Nitrite as N	4.857	4.857	0.000	260570116	NC	NC	
4 Bromide	5.993	5.993	0.000	39578393	5.00	4.76	
5 Nitrate as N	6.715	6.715	0.000	231632093	NC	NC	
6 Orthophosphate as P	8.493	8.493	0.000	173253280	NC	NC	
7 Sulfate	9.533	9.533	0.000	1455183810	100.0	100.2	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

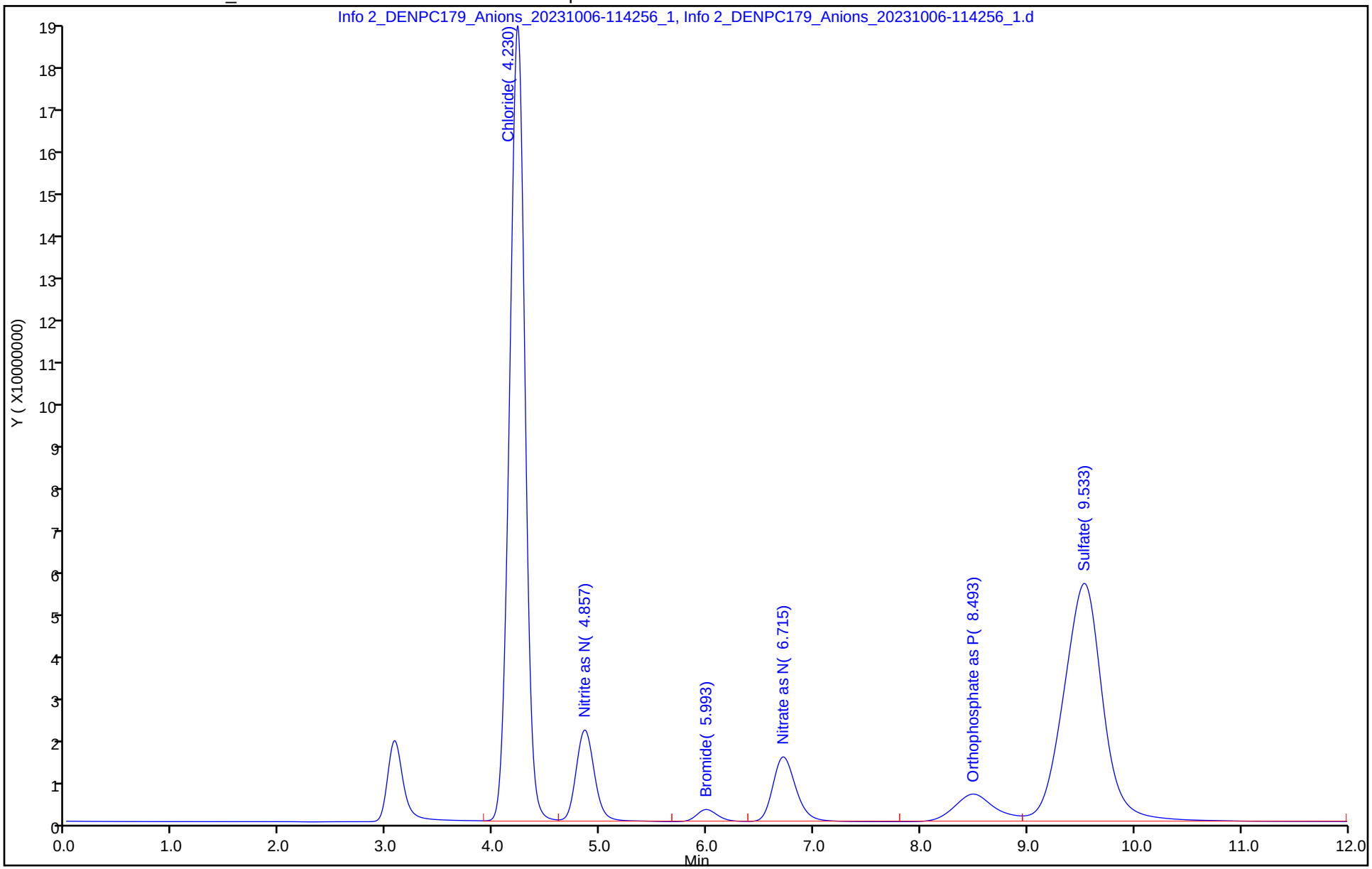
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:07:19 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114256_1.d				
Injection Date:	05-Oct-2023 13:40:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	lcsd			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	05-Oct-2023 13:55:00	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-006				
Misc. Info.:	280-0126193-006				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:05:42	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.160	4.230	-0.070	36964		0.1789	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N	6.515	6.715	-0.200	1157654		NC	
6 Orthophosphate as P	8.580	8.493	0.087	20081198		NC	
7 Sulfate	9.645	9.533	0.112	12700665		0.9579	

QC Flag Legend

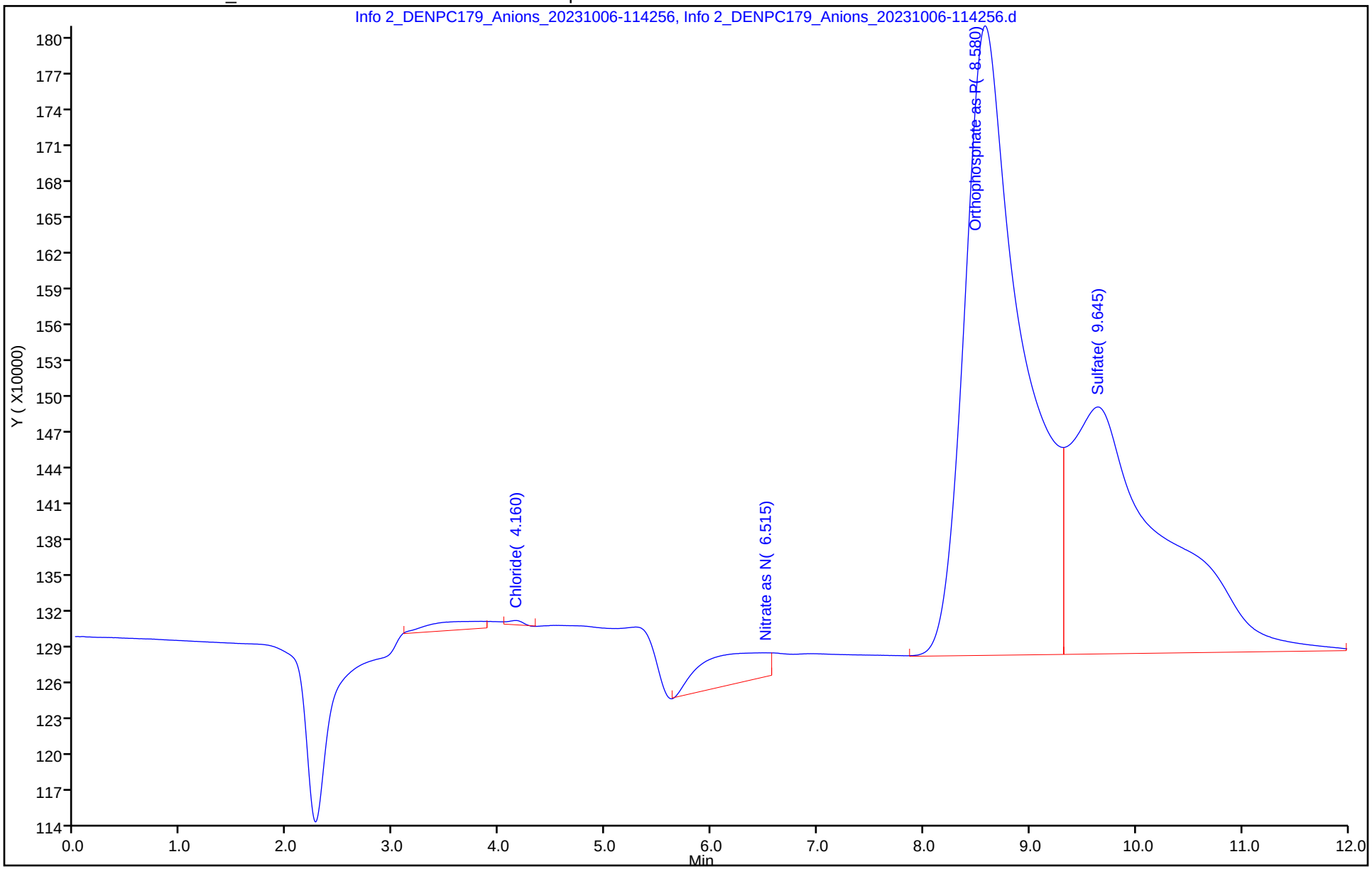
Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:05:42 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114256.d

Injection Date:	05-Oct-2023 13:55:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: 280-182443-E-2
Client ID: WBGmw-009-230901-GW
Sample Type: Client
Inject. Date: 05-Oct-2023 14:46:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-007
Misc. Info.: 280-0126193-007
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:07:19 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	
2 Chloride	4.188	4.230	-0.042	25235537	1.48	
3 Nitrite as N		4.857			ND	
4 Bromide	6.195	5.993	0.202	3179220	0.3422	
5 Nitrate as N	6.907	6.715	0.192	2674453	NC	
6 Orthophosphate as P	8.720	8.493	0.227	7438957	NC	
7 Sulfate	9.625	9.533	0.092	320043143	22.1	

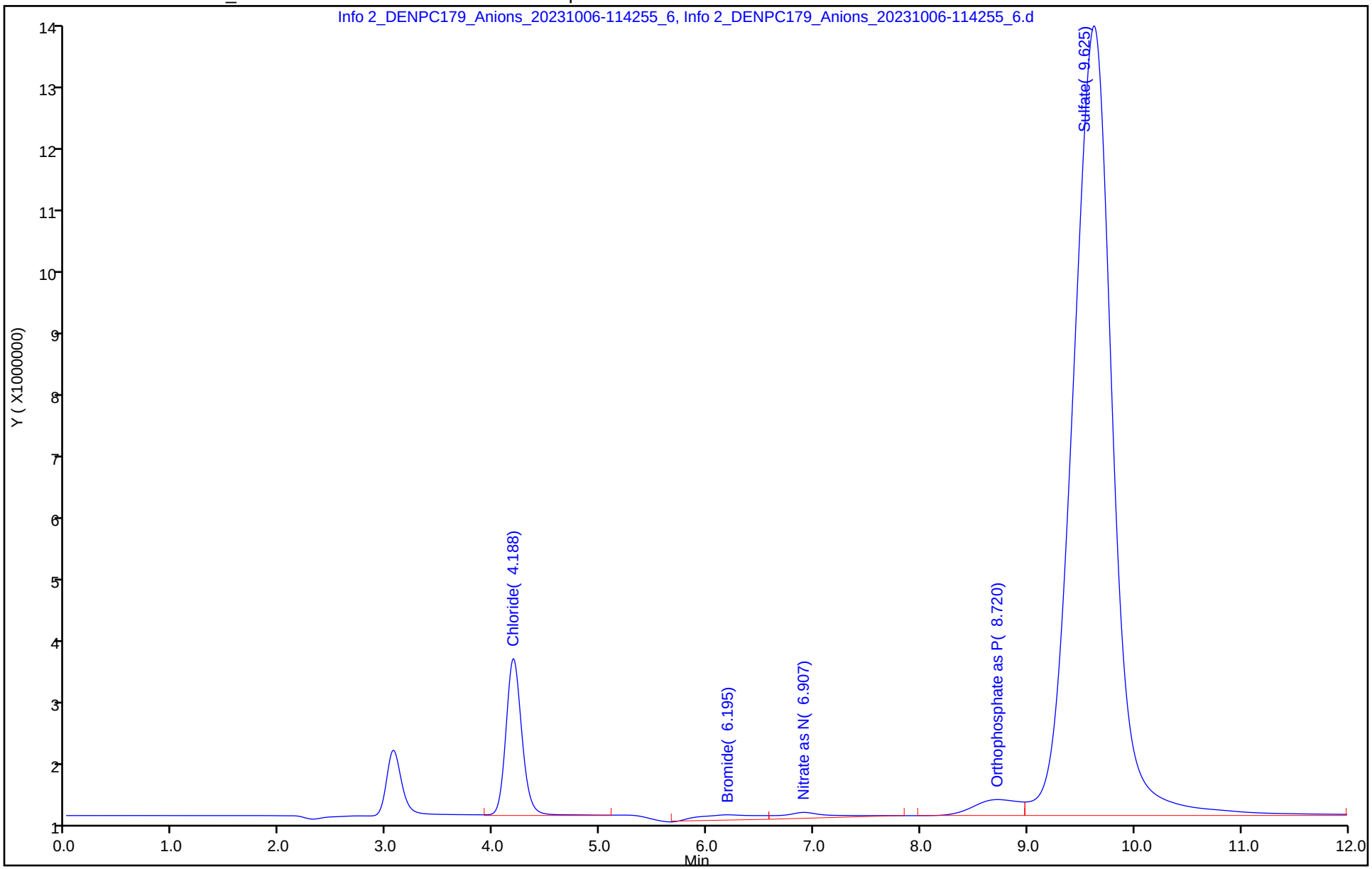
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:07:22 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114255_6.d				
Injection Date:	05-Oct-2023 14:46:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-2	Lab Sample ID:	280-182443-2	Worklist Smp#:	7
Client ID:	WBGmw-009-230901-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	280-182443-E-2 DU				
Client ID:					
Sample Type:	DU				
Inject. Date:	05-Oct-2023 15:01:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-008				
Misc. Info.:	280-0126193-008				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:07:19	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.192	4.230	-0.038	25146299		1.48	
3 Nitrite as N		4.857				ND	
4 Bromide	6.190	5.993	0.197	3301728		0.3571	
5 Nitrate as N	6.908	6.715	0.193	2378780		NC	
6 Orthophosphate as P	8.775	8.493	0.282	3458481		NC	
7 Sulfate	9.630	9.533	0.097	314943018		21.8	

QC Flag Legend

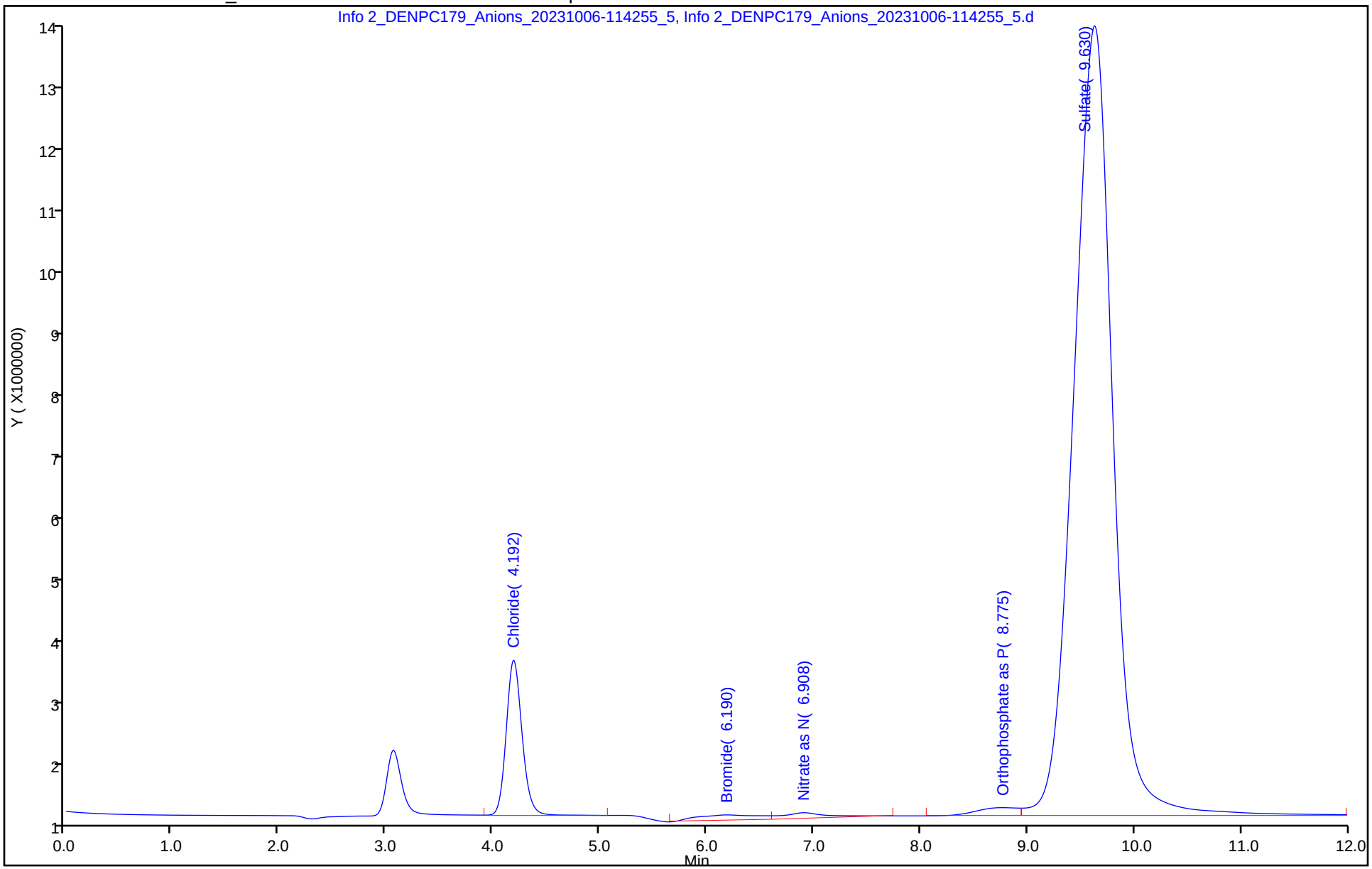
Processing Flags

NC - Not Calibrated

Report Date: 06-Oct-2023 12:07:23 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114255_5.d				
Injection Date:	05-Oct-2023 15:01:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-2 DU			Worklist Smp#:	8
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: 280-182443-E-2 MS
Client ID:
Sample Type: MS
Inject. Date: 05-Oct-2023 15:16:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-009
Misc. Info.: 280-0126193-009
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:07:19 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.198	4.230	-0.032	1064858217	50.0	55.3	
3 Nitrite as N	4.865	4.857	0.008	228262888	NC	NC	
4 Bromide	6.138	5.993	0.145	40201468	5.00	4.84	
5 Nitrate as N	6.807	6.715	0.092	252763288	NC	NC	
6 Orthophosphate as P	8.597	8.493	0.104	184581007	NC	NC	
7 Sulfate	9.607	9.533	0.074	1168911785	50.0	80.5	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

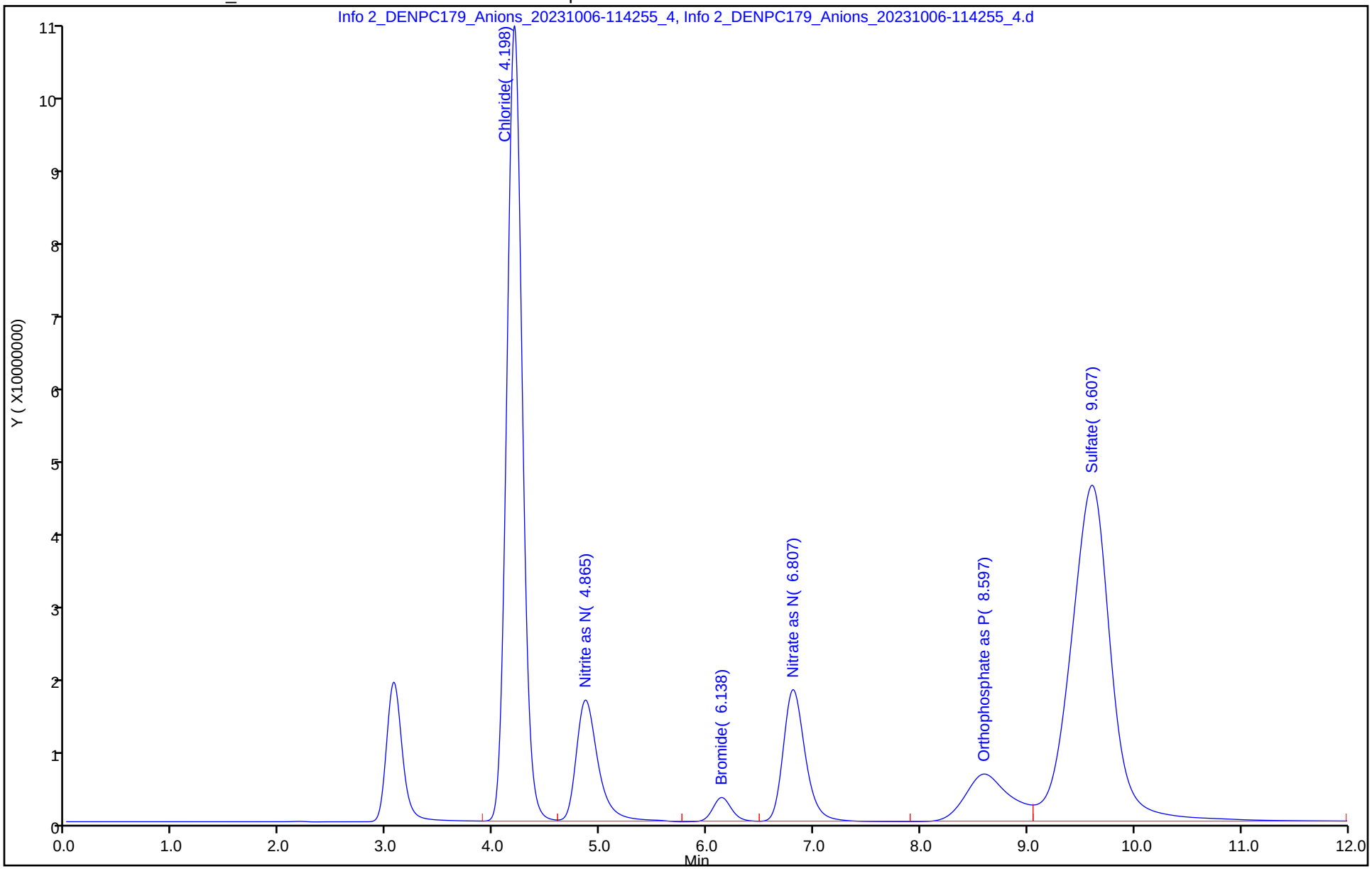
Reagents:

ICMS/MSD WEEK_00839 Amount Added: 0.10 Units: mL

Report Date: 06-Oct-2023 12:07:23 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114255_4.d				
Injection Date:	05-Oct-2023 15:16:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-2 MS			Worklist Smp#:	9
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: 280-182443-E-2 MSD
Client ID:
Sample Type: MSD
Inject. Date: 05-Oct-2023 15:31:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-010
Misc. Info.: 280-0126193-010
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:07:19 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.202	4.230	-0.028	1086899531	50.0	56.4	
3 Nitrite as N	4.868	4.857	0.011	233322444	NC	NC	
4 Bromide	6.140	5.993	0.147	40970328	5.00	4.93	
5 Nitrate as N	6.810	6.715	0.095	257936215	NC	NC	
6 Orthophosphate as P	8.602	8.493	0.109	187989018	NC	NC	
7 Sulfate	9.613	9.533	0.080	1188643838	50.0	81.9	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

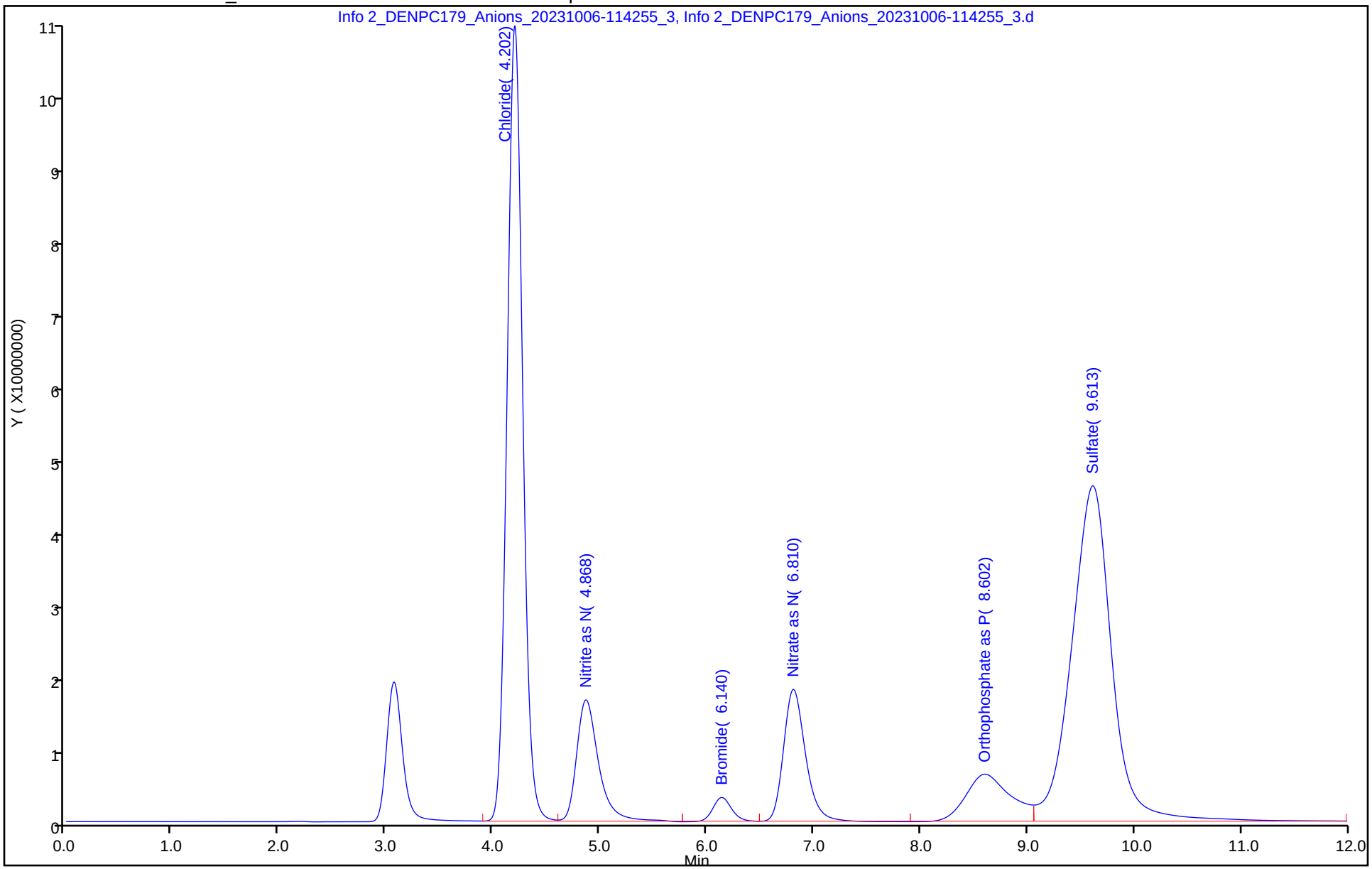
Reagents:

ICMS/MSD WEEK_00839 Amount Added: 0.10 Units: mL

Report Date: 06-Oct-2023 12:07:24 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114255_3.d				
Injection Date:	05-Oct-2023 15:31:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-2 MSD			Worklist Smp#:	10
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	280-182443-E-4				
Client ID:	WBGmw-006-230901-GW				
Sample Type:	Client				
Inject. Date:	05-Oct-2023 16:16:00	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-013				
Misc. Info.:	280-0126193-013				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:05:42	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	
2 Chloride	4.190	4.230	-0.040	14239078	0.9136	
3 Nitrite as N		4.857			ND	
4 Bromide	6.160	5.993	0.167	3534997	0.3854	
5 Nitrate as N		6.715			ND	
6 Orthophosphate as P	8.753	8.493	0.260	4036404	NC	
7 Sulfate	9.613	9.533	0.080	386896753	26.7	

QC Flag Legend

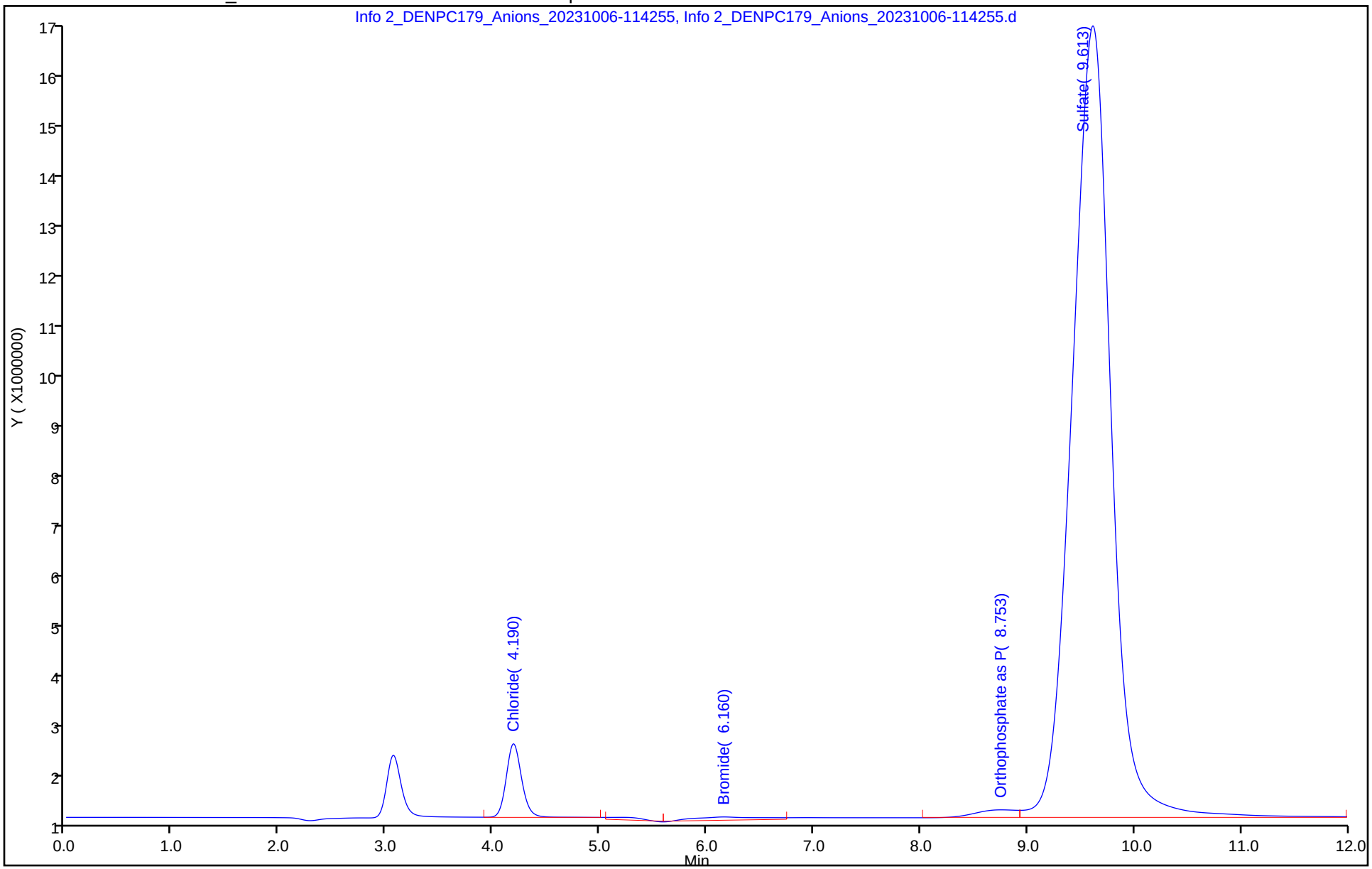
Processing Flags

NC - Not Calibrated

Report Date: 06-Oct-2023 12:05:47 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114255.d				
Injection Date:	05-Oct-2023 16:16:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-4	Lab Sample ID:	280-182443-4	Worklist Smp#:	13
Client ID:	WBGmw-006-230901-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	05-Oct-2023 17:16:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-017				
Misc. Info.:	280-0126193-017				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Sublist:	chrom-Anions_IC10*sub9				
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:07:30	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.230	4.230	0.000	1888812308	100.0	97.9	
3 Nitrite as N	4.858	4.857	0.001	263951916	NC	NC	
4 Bromide	5.978	5.993	-0.015	38908461	5.00	4.68	
5 Nitrate as N	6.703	6.715	-0.012	228540159	NC	NC	
6 Orthophosphate as P	8.497	8.493	0.004	165587211	NC	NC	
7 Sulfate	9.537	9.533	0.004	1441085766	100.0	99.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

ND - Not Detected or Marked ND

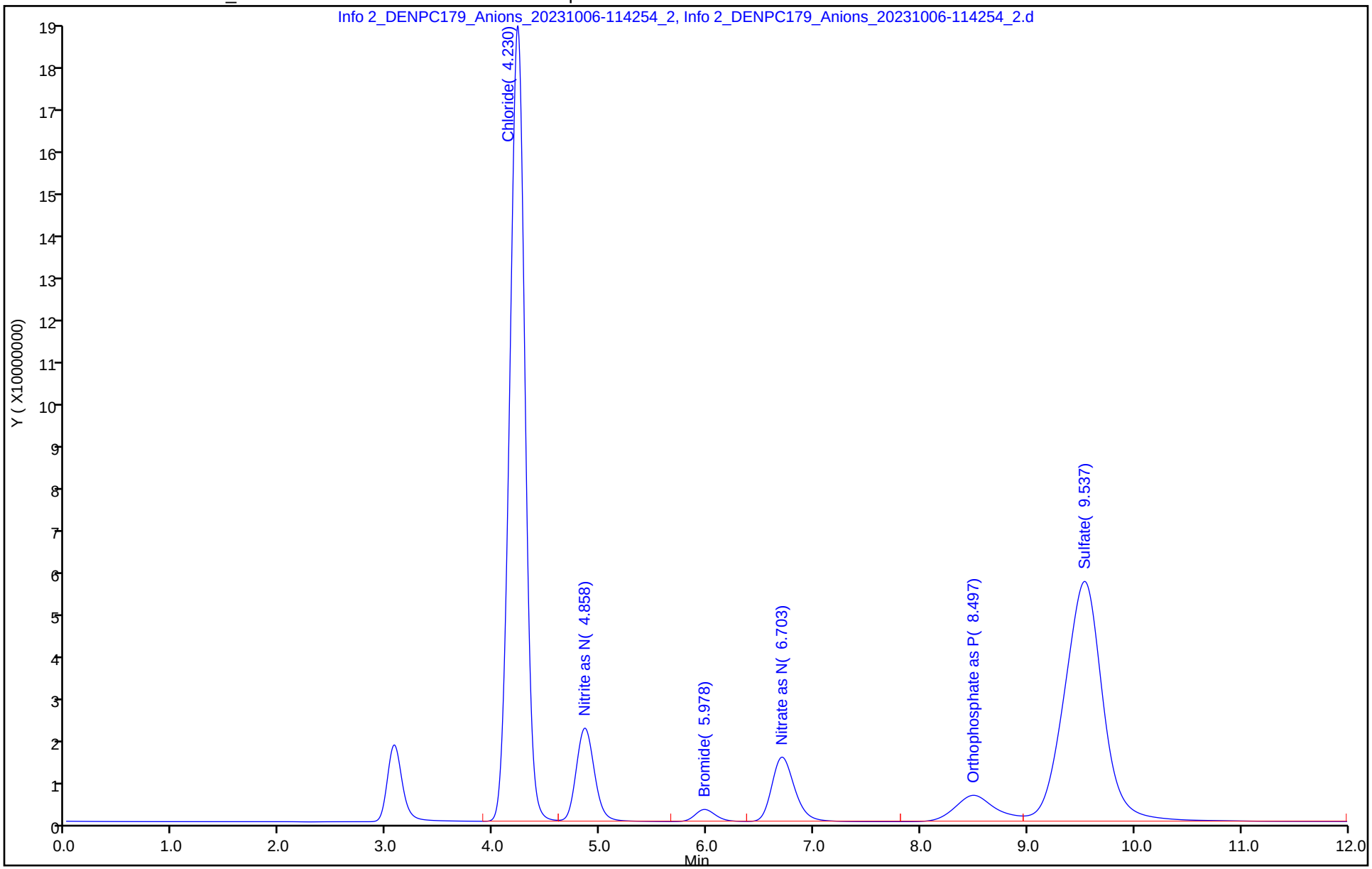
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:07:30 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114254_2.d				
Injection Date:	05-Oct-2023 17:16:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	17
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	05-Oct-2023 17:31:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-018				
Misc. Info.:	280-0126193-018				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:07:30	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.165	4.230	-0.065	26641		0.1784	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.588	8.493	0.095	12947381		NC	
7 Sulfate	9.648	9.533	0.115	10250932		0.7894	

QC Flag Legend

Processing Flags

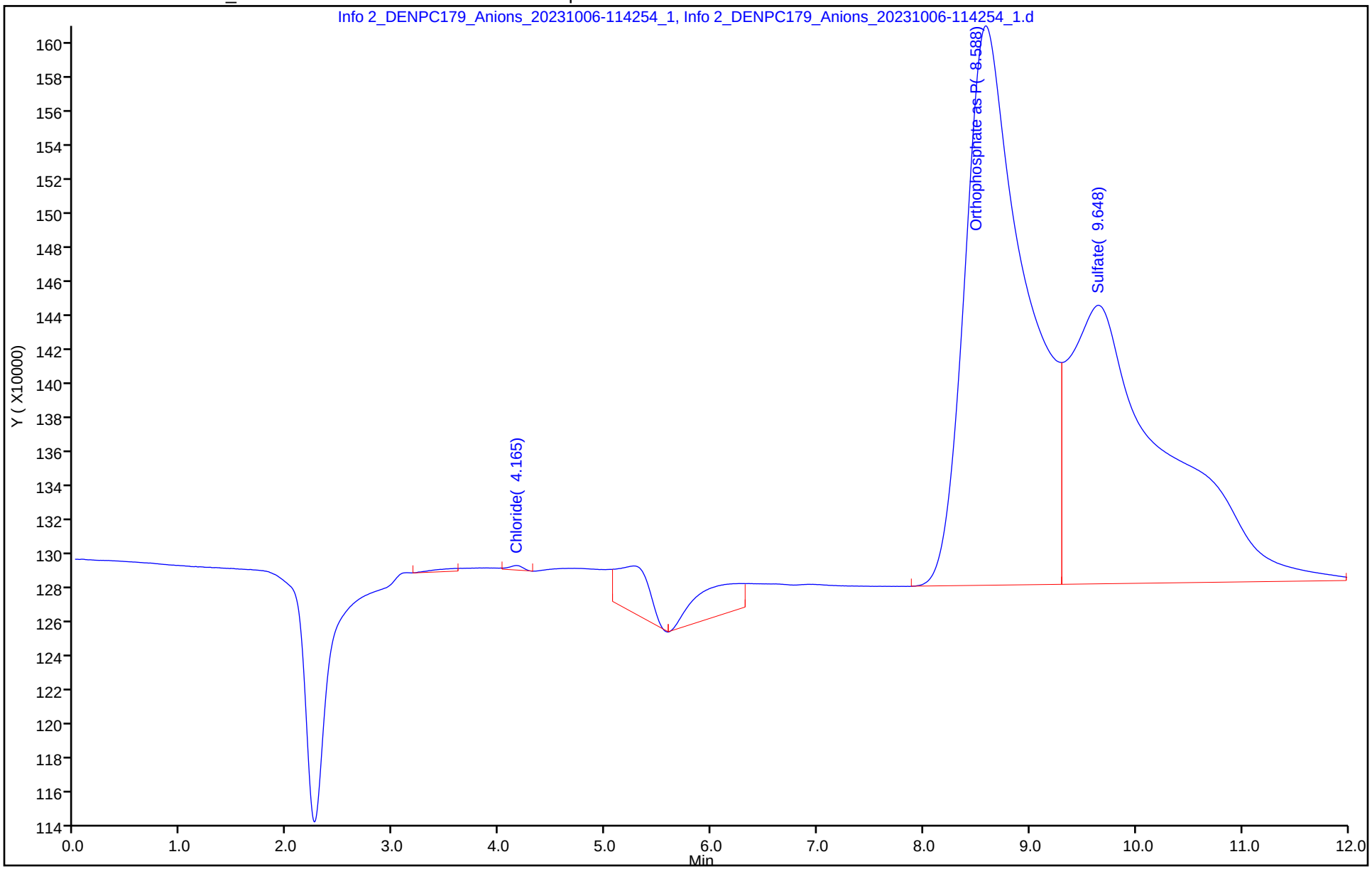
NC - Not Calibrated

Report Date: 06-Oct-2023 12:07:31 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114254_1.d

Injection Date:	05-Oct-2023 17:31:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	18
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 05-Oct-2023 20:17:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-029
Misc. Info.: 280-0126193-029
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:07:43 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.228	4.230	-0.002	1897858435	100.0	98.4	
3 Nitrite as N	4.857	4.857	0.000	265668312	NC	NC	
4 Bromide	5.980	5.993	-0.013	39221394	5.00	4.72	
5 Nitrate as N	6.707	6.715	-0.008	229477714	NC	NC	
6 Orthophosphate as P	8.485	8.493	-0.008	164351932	NC	NC	
7 Sulfate	9.530	9.533	-0.003	1443172652	100.0	99.4	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

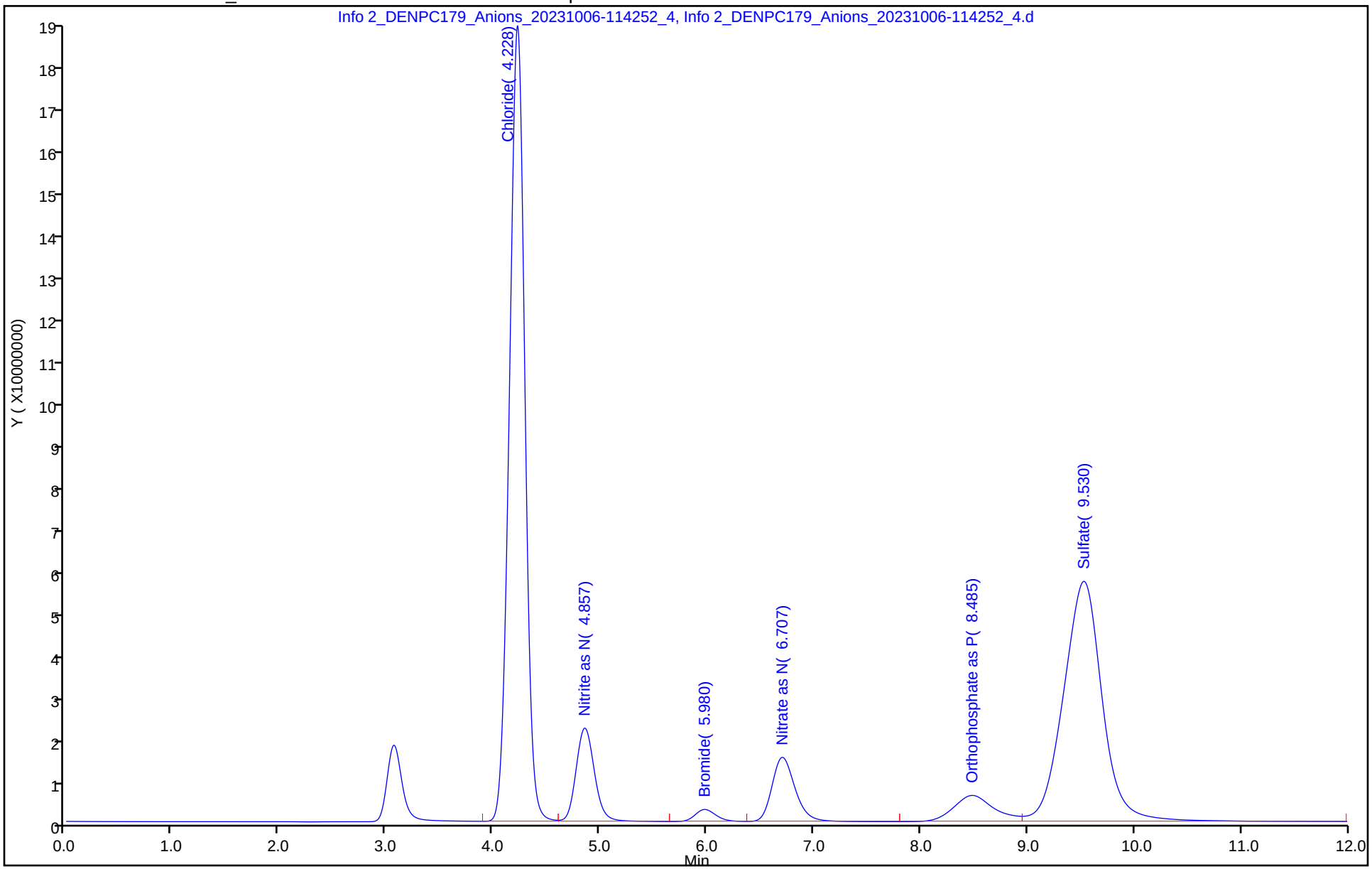
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:07:44 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114252_4.d				
Injection Date:	05-Oct-2023 20:17:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	29
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	05-Oct-2023 20:32:00	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-030				
Misc. Info.:	280-0126193-030				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:07:43	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.193	4.230	-0.037	119622		0.1832	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.587	8.493	0.094	10952866		NC	
7 Sulfate	9.660	9.533	0.127	8739884		0.6854	

QC Flag Legend

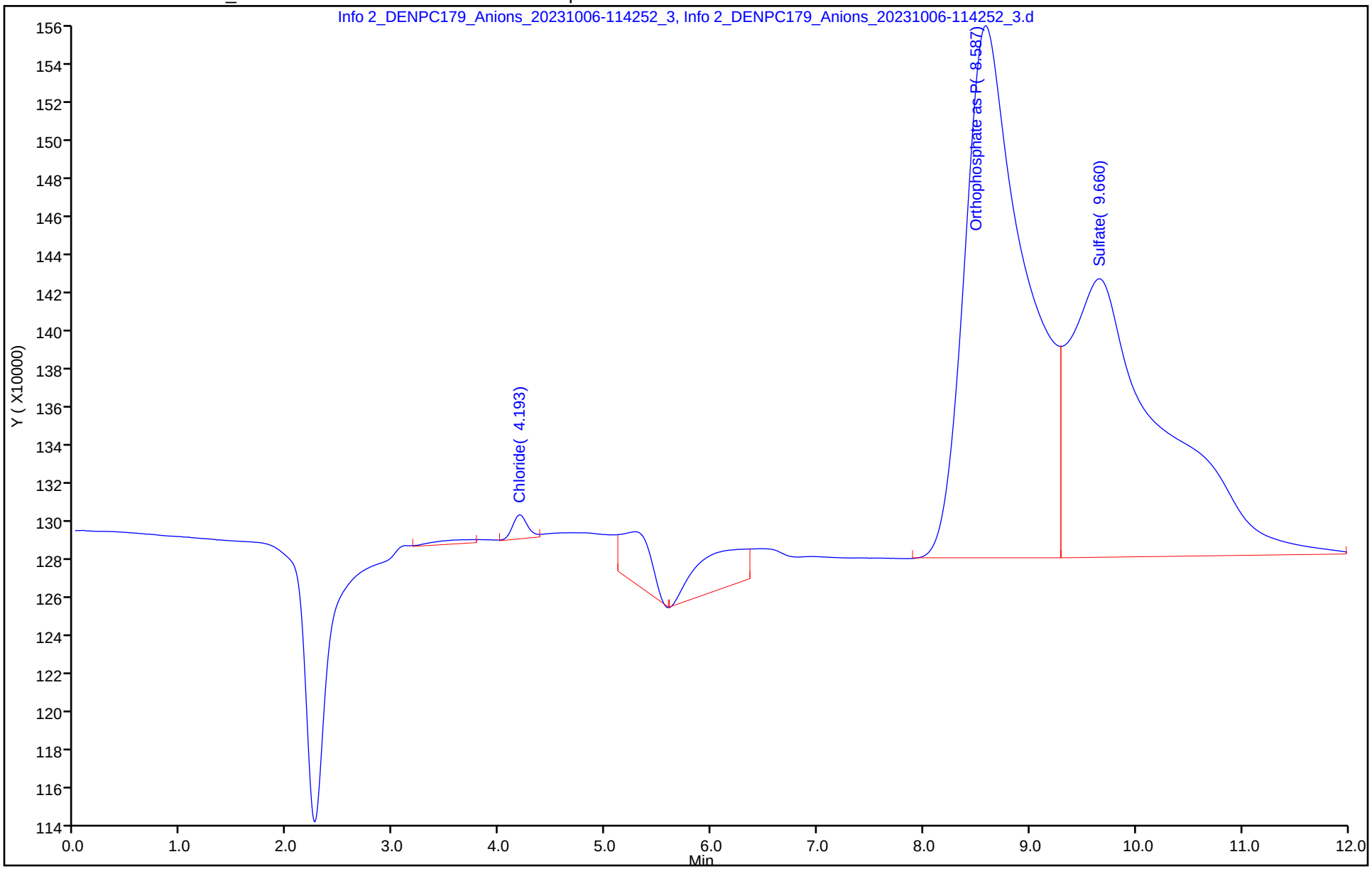
Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:07:44 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114252_3.d

Injection Date:	05-Oct-2023 20:32:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	30
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 05-Oct-2023 22:17:00 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-037
Misc. Info.: 280-0126193-037
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:08:29 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.228	4.230	-0.002	1902393578	100.0	98.6	
3 Nitrite as N	4.858	4.857	0.001	266049392	NC	NC	
4 Bromide	5.980	5.993	-0.013	39290181	5.00	4.73	
5 Nitrate as N	6.710	6.715	-0.005	230047310	NC	NC	
6 Orthophosphate as P	8.487	8.493	-0.006	163030128	NC	NC	
7 Sulfate	9.535	9.533	0.002	1447366554	100.0	99.7	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

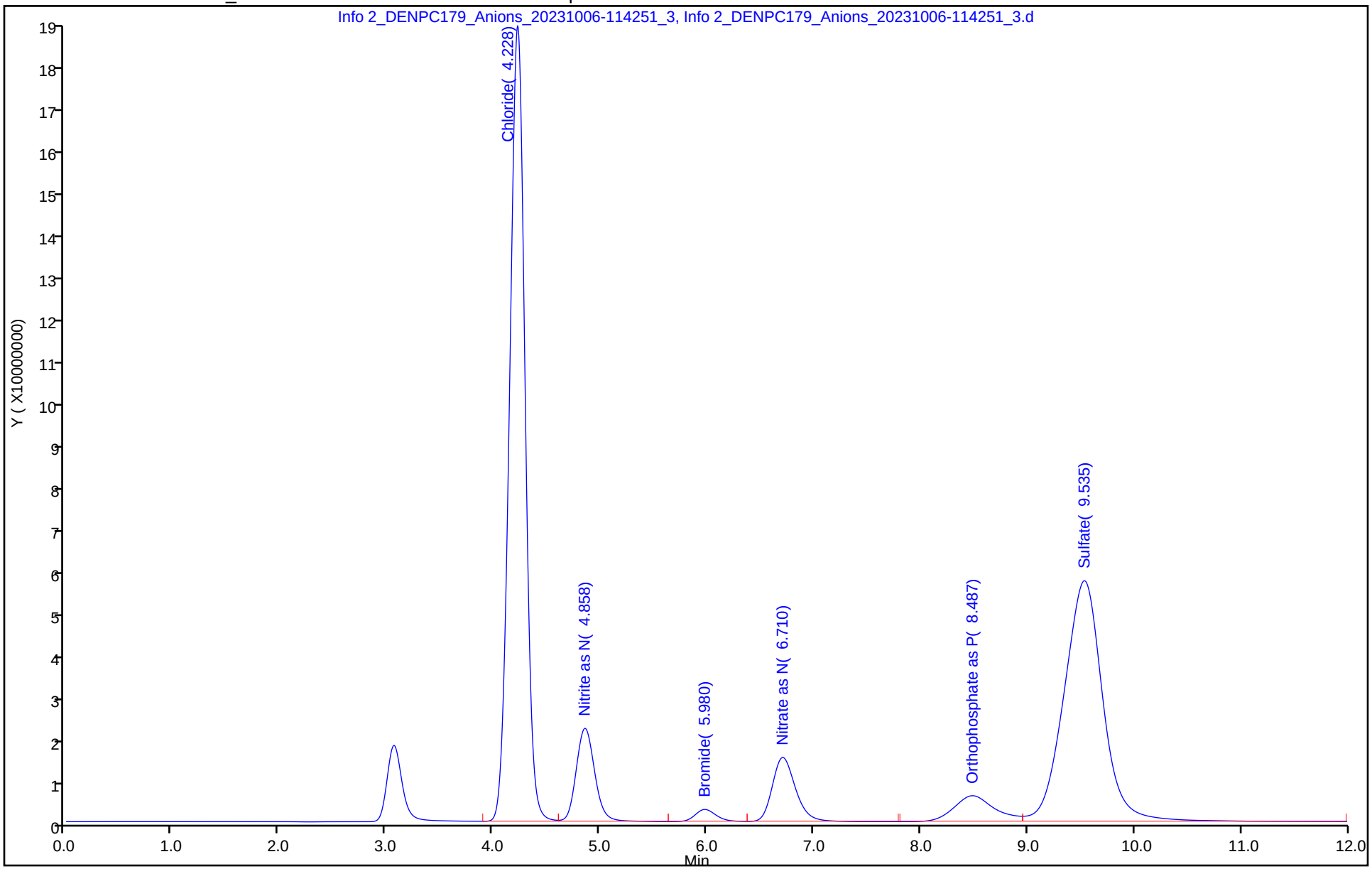
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:09:41 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114251_3.d				
Injection Date:	05-Oct-2023 22:17:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	lcs			Worklist Smp#:	37
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: lcsd
Client ID:
Sample Type: LCSD
Inject. Date: 05-Oct-2023 22:32:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-038
Misc. Info.: 280-0126193-038
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:08:29 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.232	4.230	0.002	1903942643	100.0	98.7	
3 Nitrite as N	4.862	4.857	0.005	267825170	NC	NC	
4 Bromide	5.992	5.993	-0.001	39304309	5.00	4.73	
5 Nitrate as N	6.720	6.715	0.005	230075665	NC	NC	
6 Orthophosphate as P	8.492	8.493	-0.001	167781322	NC	NC	
7 Sulfate	9.542	9.533	0.009	1449166206	100.0	99.8	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

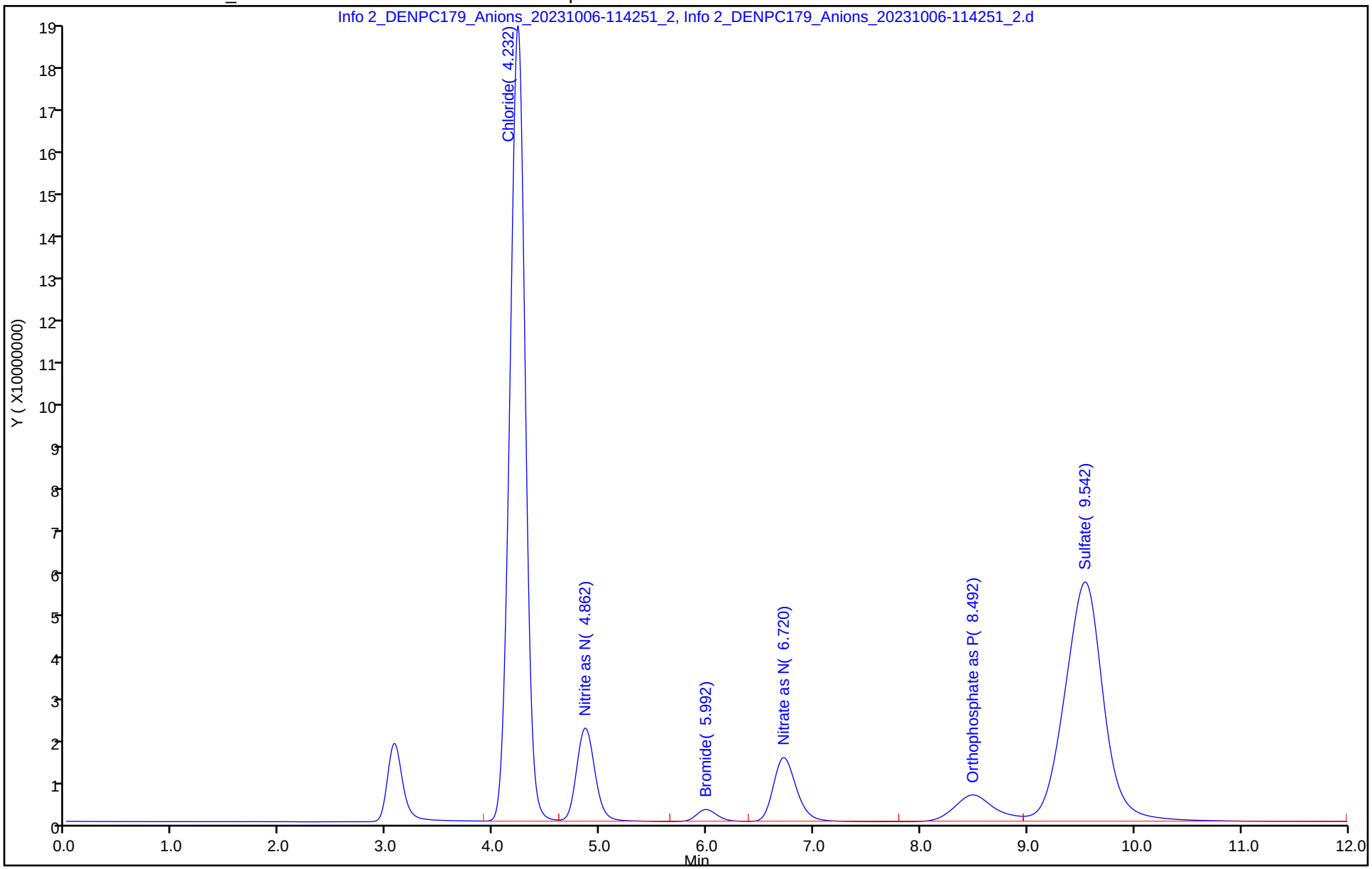
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:09:42 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114251_2.d				
Injection Date:	05-Oct-2023 22:32:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	lcsd			Worklist Smp#:	38
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	mb				
Client ID:					
Sample Type:	MB				
Inject. Date:	05-Oct-2023 22:47:00	ALS Bottle#:	0	Worklist Smp#:	39
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-039				
Misc. Info.:	280-0126193-039				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:08:29	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.187	4.230	-0.043	71065		0.1807	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.578	8.493	0.085	15226298		NC	
7 Sulfate	9.650	9.533	0.117	10477184		0.8049	

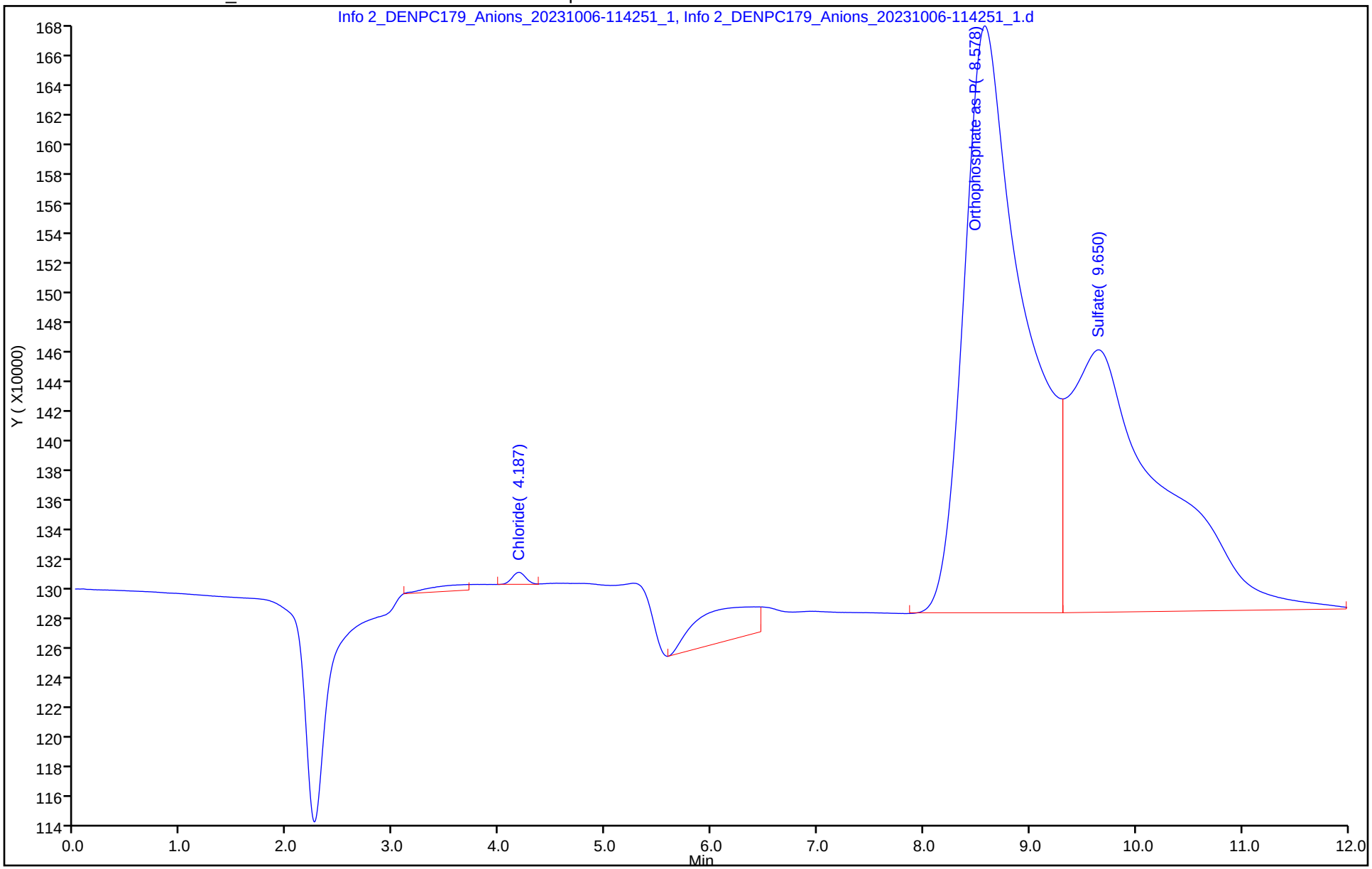
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:09:43 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114251_1.d				
Injection Date:	05-Oct-2023 22:47:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	mb			Worklist Smp#:	39
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 05-Oct-2023 23:17:00 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-041
Misc. Info.: 280-0126193-041
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:07:56 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.230	4.230	0.000	1902168447	100.0	98.6	
3 Nitrite as N	4.860	4.857	0.003	266446029	NC	NC	
4 Bromide	5.988	5.993	-0.005	39412495	5.00	4.74	
5 Nitrate as N	6.715	6.715	0.000	230123037	NC	NC	
6 Orthophosphate as P	8.485	8.493	-0.008	162929404	NC	NC	
7 Sulfate	9.535	9.533	0.002	1445296520	100.0	99.5	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

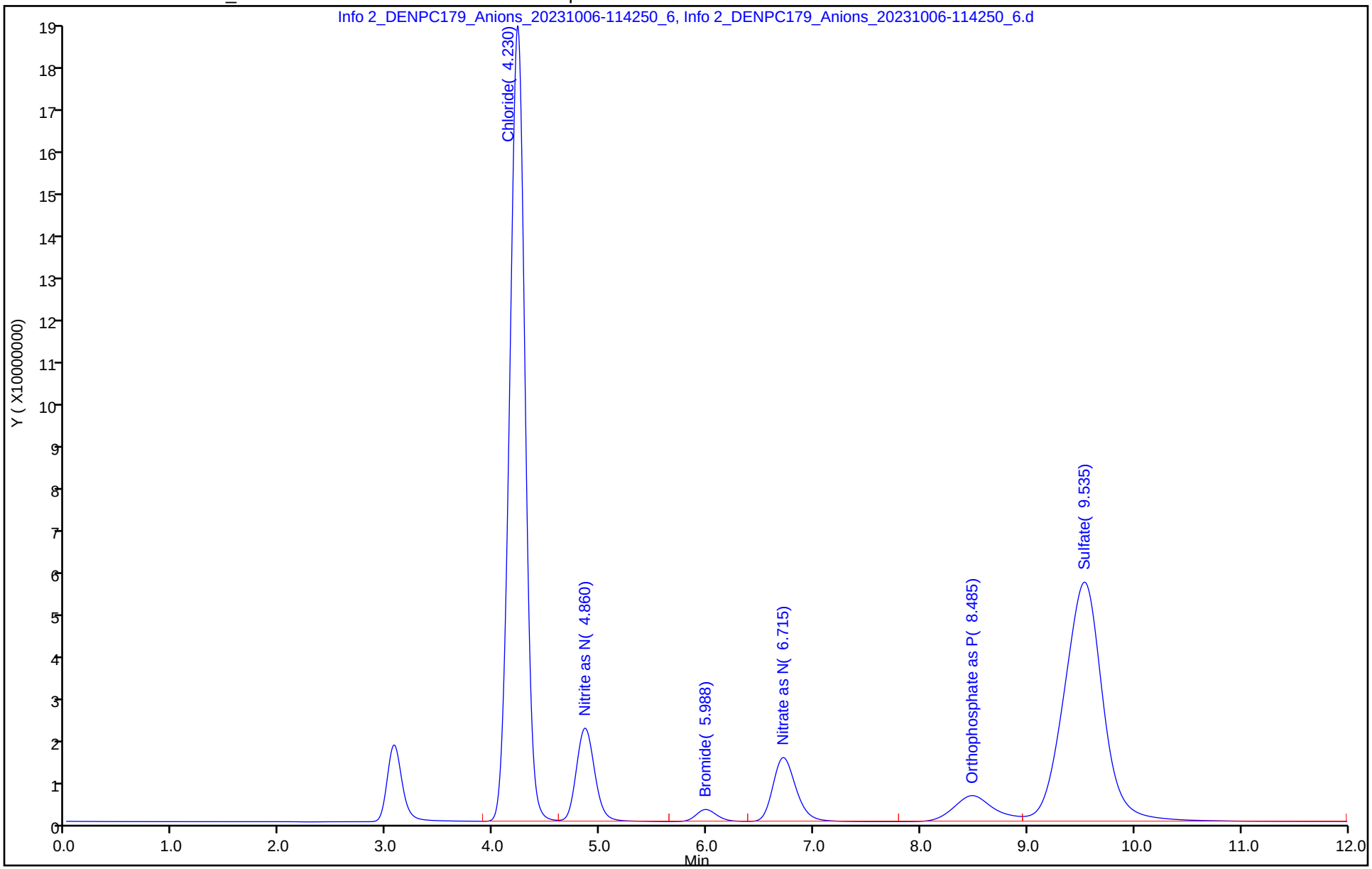
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:07:57 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114250_6.d				
Injection Date:	05-Oct-2023 23:17:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	41
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	05-Oct-2023 23:32:00	ALS Bottle#:	0	Worklist Smp#:	42
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-042				
Misc. Info.:	280-0126193-042				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:08:29	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.188	4.230	-0.042	76435		0.1810	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.582	8.493	0.089	12761636		NC	
7 Sulfate	9.653	9.533	0.120	9580789		0.7432	

QC Flag Legend

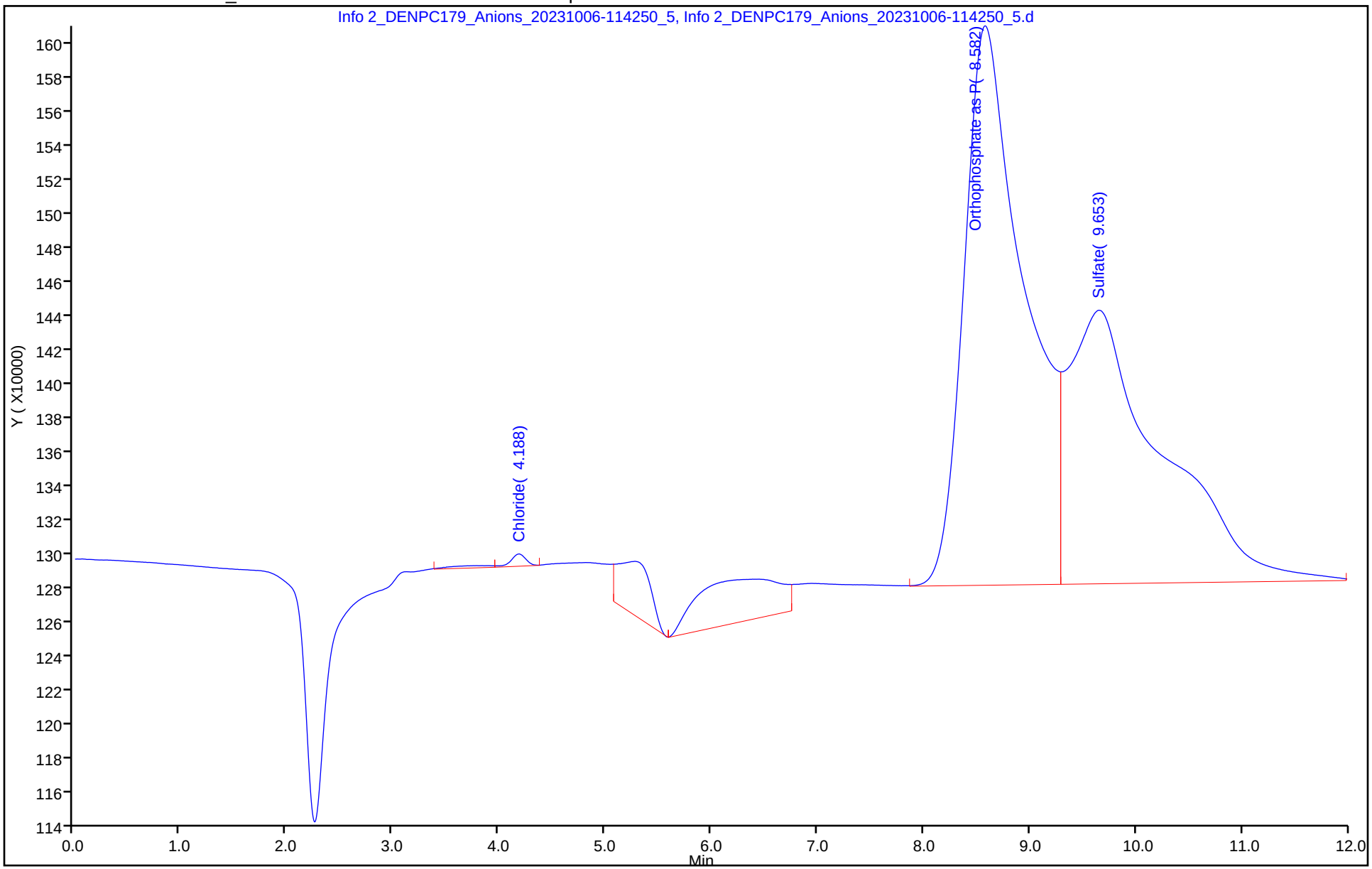
Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:09:48 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114250_5.d

Injection Date:	05-Oct-2023 23:32:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	42
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	280-182443-E-7				
Client ID:	WBGmw-018-230901-GW				
Sample Type:	Client				
Inject. Date:	06-Oct-2023 00:47:00	ALS Bottle#:	0	Worklist Smp#:	47
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-047				
Misc. Info.:	280-0126193-047				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:07:56	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	
2 Chloride	4.190	4.230	-0.040	15254445	0.9661	
3 Nitrite as N	4.860	4.857	0.003	71622	NC	
4 Bromide	6.103	5.993	0.110	1057547	0.0845	
5 Nitrate as N	6.807	6.715	0.092	19495805	NC	
6 Orthophosphate as P	8.588	8.493	0.095	10728265	NC	
7 Sulfate	9.567	9.533	0.034	166783263	11.6	

QC Flag Legend

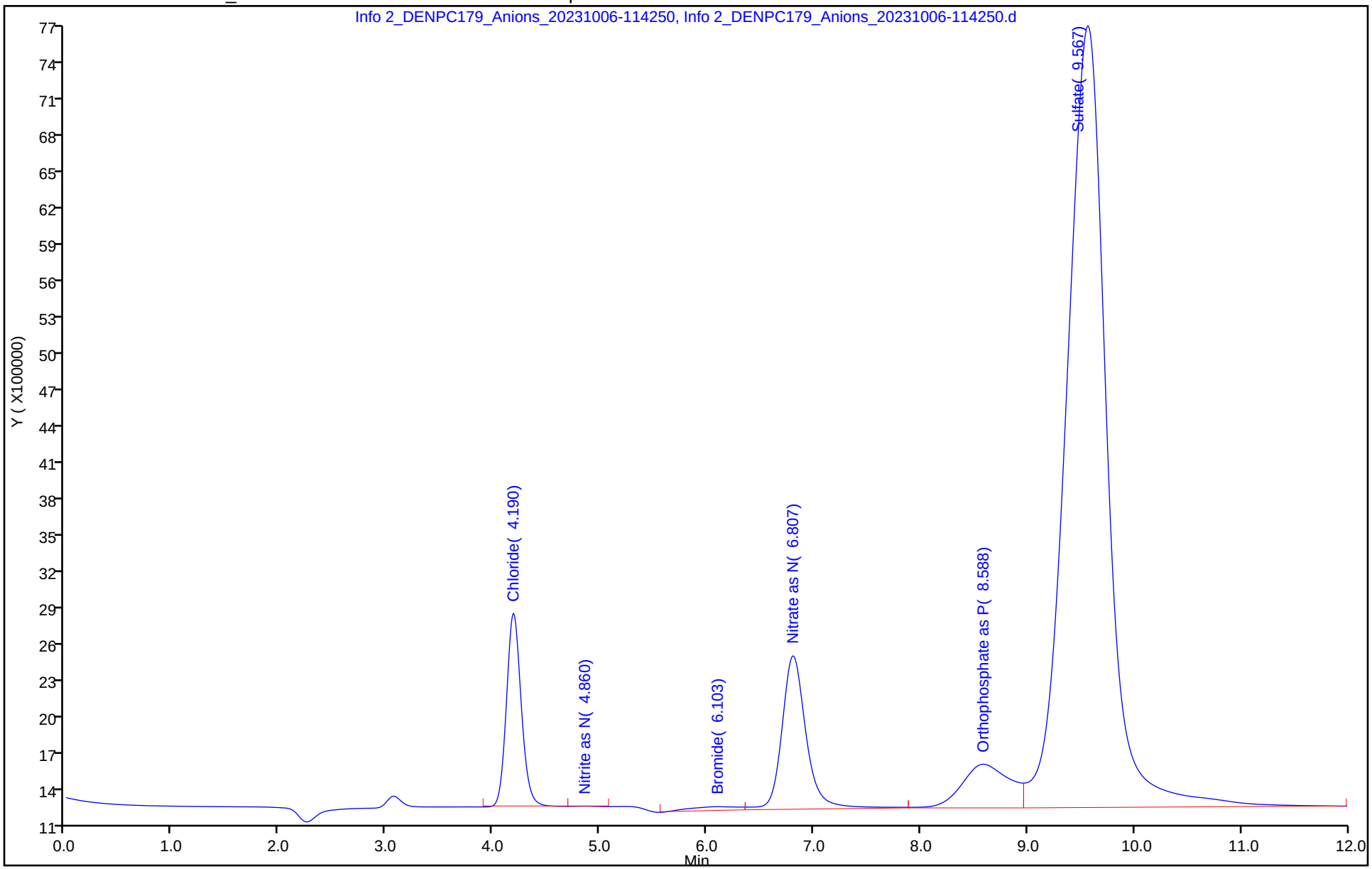
Processing Flags

NC - Not Calibrated

Report Date: 06-Oct-2023 12:08:10 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114250.d				
Injection Date:	06-Oct-2023 00:47:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-7	Lab Sample ID:	280-182443-7	Worklist Smp#:	47
Client ID:	WBGmw-018-230901-GW				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: 280-182443-E-8
Client ID: WBGMW-RB-018-2023
Sample Type: Client
Inject. Date: 06-Oct-2023 01:47:00 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-051
Misc. Info.: 280-0126193-051
Operator ID: wetchemd Instrument ID: WC_IonChrom10

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:08:29 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	
2 Chloride	4.190	4.230	-0.040	93133	0.1818	
3 Nitrite as N		4.857			ND	
4 Bromide		5.993			ND	
5 Nitrate as N		6.715			ND	
6 Orthophosphate as P	8.592	8.493	0.099	4383042	NC	
7 Sulfate	9.663	9.533	0.130	5471736	0.4605	

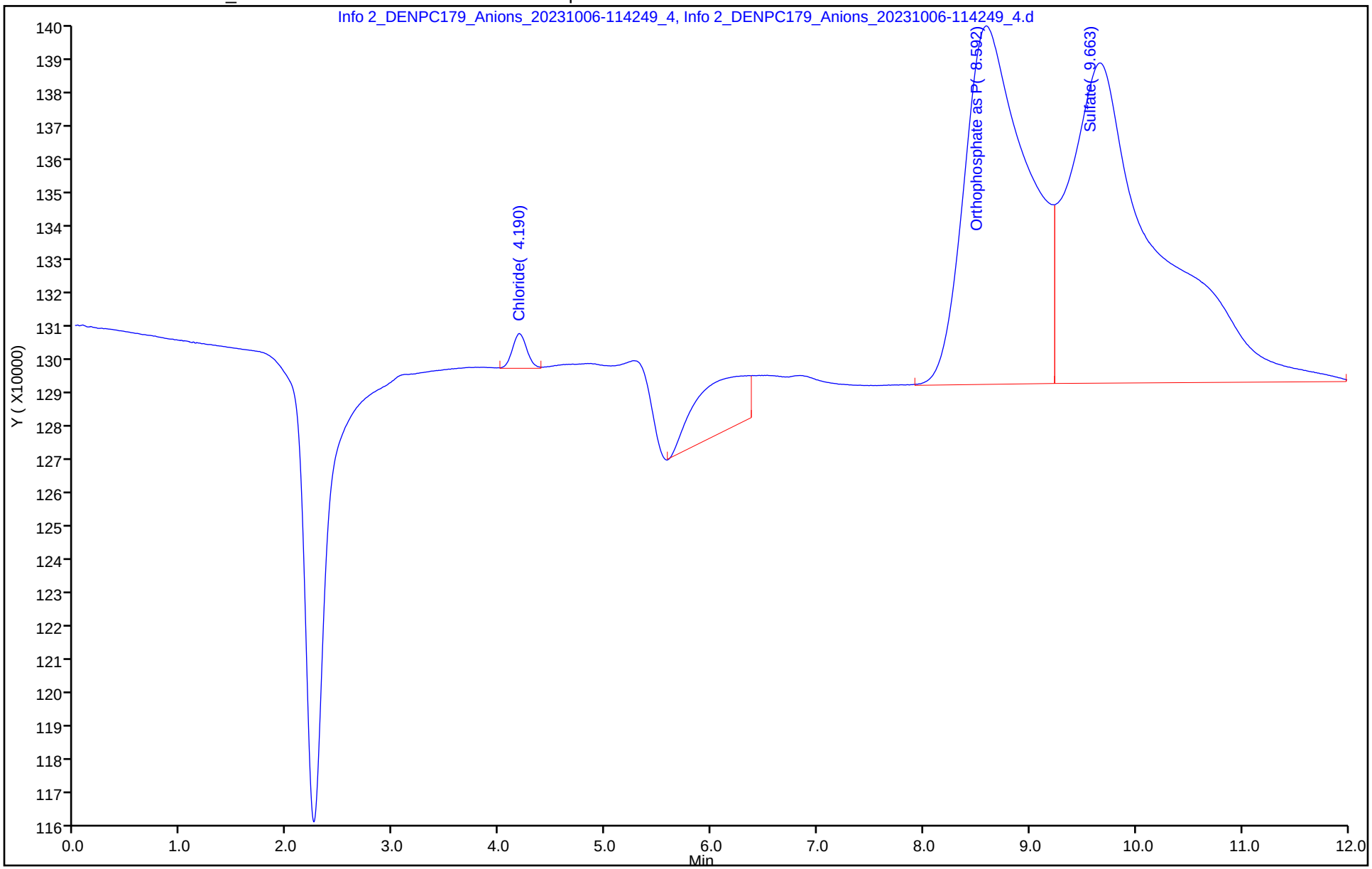
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:09:56 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114249_4.d				
Injection Date:	06-Oct-2023 01:47:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	280-182443-E-8	Lab Sample ID:	280-182443-8	Worklist Smp#:	51
Client ID:	WBGMW-RB-018-2023				
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 06-Oct-2023 02:17:00 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 5.0 ul Dil. Factor: 1.0000
Sample Info: 280-0126193-053
Misc. Info.: 280-0126193-053
Operator ID: wetchemd Instrument ID: WC_IonChrom10
Sublist: chrom-Anions_IC10*sub9

Method: \\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m
Limit Group: Wet - Anions 28D
Last Update: 06-Oct-2023 12:09:57 Calib Date: 16-Aug-2023 09:39:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100

Column 1 : Det: Info 2_091554_1
Process Host: CTX1609

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078			ND	ND	
2 Chloride	4.230	4.230	0.000	1923902737	100.0	99.7	
3 Nitrite as N	4.863	4.857	0.006	268556498	NC	NC	
4 Bromide	5.988	5.993	-0.005	39686389	5.00	4.78	
5 Nitrate as N	6.720	6.715	0.005	232632729	NC	NC	
6 Orthophosphate as P	8.482	8.493	-0.011	161029406	NC	NC	
7 Sulfate	9.532	9.533	-0.001	1461321619	100.0	100.6	

QC Flag Legend

Processing Flags
NC - Not Calibrated
ND - Not Detected or Marked ND

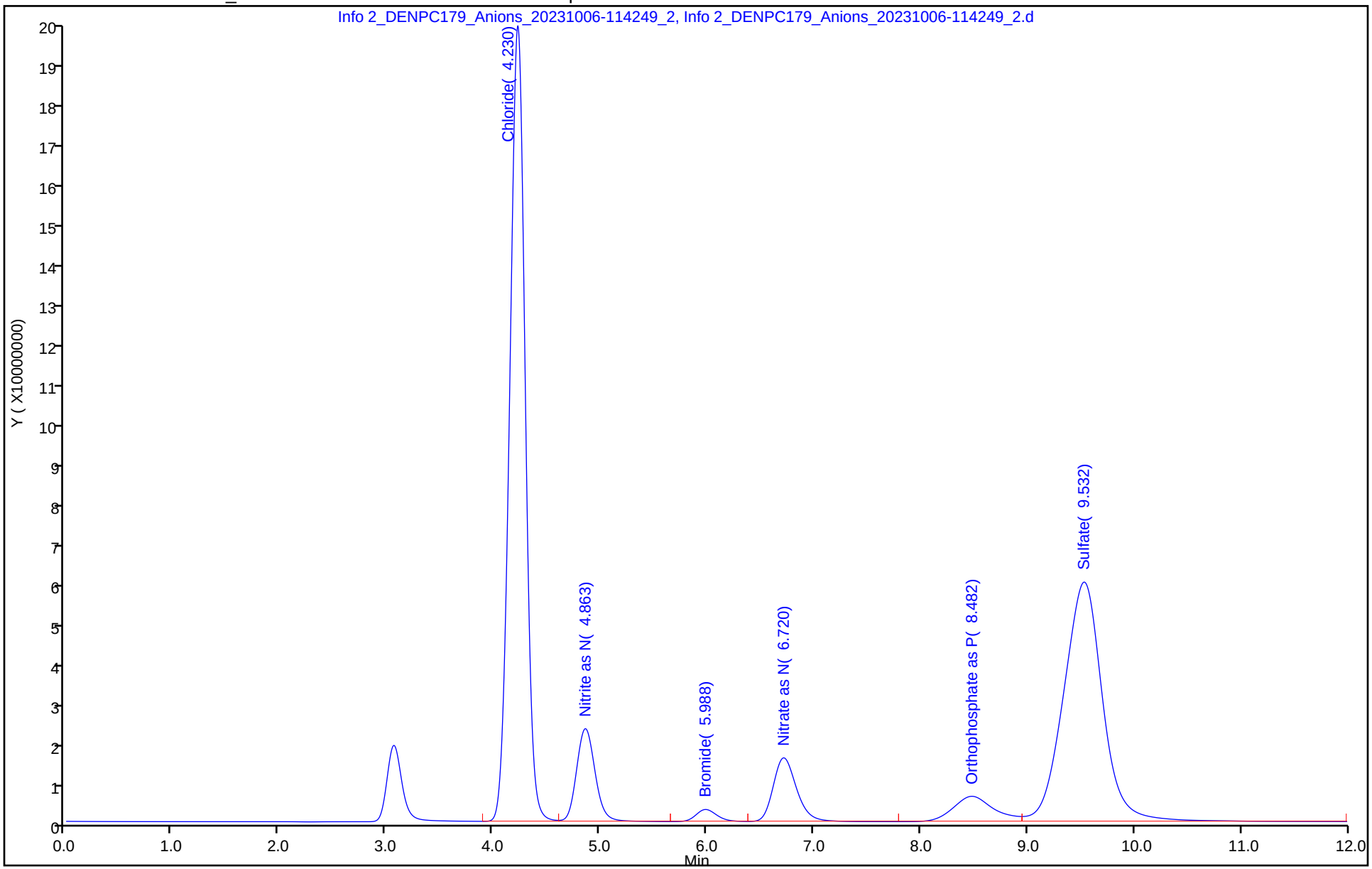
Reagents:

IC LCS_01981 Amount Added: 10.00 Units: mL

Report Date: 06-Oct-2023 12:09:57 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114249_2.d				
Injection Date:	06-Oct-2023 02:17:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccv			Worklist Smp#:	53
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

Eurofins Denver
Target Compound Quantitation Report

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114				
Lims ID:	ccb				
Client ID:					
Sample Type:	CCB				
Inject. Date:	06-Oct-2023 02:32:00	ALS Bottle#:	0	Worklist Smp#:	54
Injection Vol:	5.0 ul	Dil. Factor:	1.0000		
Sample Info:	280-0126193-054				
Misc. Info.:	280-0126193-054				
Operator ID:	wetchemd	Instrument ID:	WC_IonChrom10		
Method:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Anions_IC10.m				
Limit Group:	Wet - Anions 28D				
Last Update:	06-Oct-2023 12:09:57	Calib Date:	16-Aug-2023 09:39:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20230815-124540.b\Info 2_DENPC179_Anions_20230816-100				
Column 1 :			Det: Info 2_091554_1		
Process Host:	CTX1609				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride		3.078				ND	
2 Chloride	4.183	4.230	-0.047	50544		0.1796	
3 Nitrite as N		4.857				ND	
4 Bromide		5.993				ND	
5 Nitrate as N		6.715				ND	
6 Orthophosphate as P	8.580	8.493	0.087	11135676		NC	
7 Sulfate	9.657	9.533	0.124	8920758		0.6978	

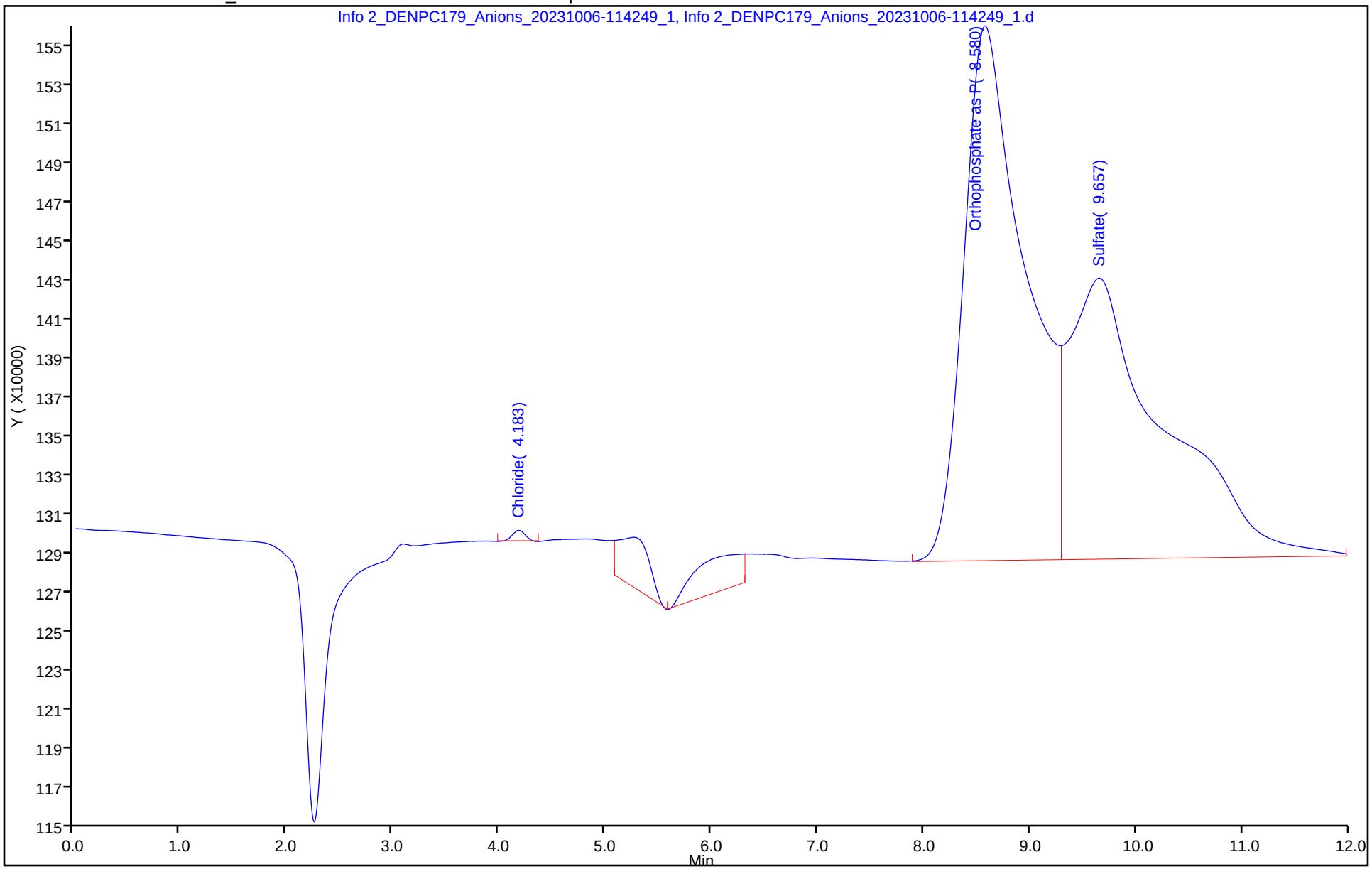
QC Flag Legend

Processing Flags
NC - Not Calibrated

Report Date: 06-Oct-2023 12:09:58 Chrom Revision: 2.3 22-Sep-2023 11:33:50

Eurofins Denver

Data File:	\\chromfs\Denver\ChromData\WC_IonChrom10\20231005-126193.b\Info 2_DENPC179_Anions_20231006-114249_1.d				
Injection Date:	06-Oct-2023 02:32:00	Instrument ID:	WC_IonChrom10	Operator ID:	wetchemd
Lims ID:	ccb			Worklist Smp#:	54
Client ID:					
Injection Vol:	5.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	Anions_IC10	Limit Group:	Wet - Anions 28D		



10/18/2023
8:21 PM

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-629718

Analyst: Wondimu, Akewak B

Batch Open: 10/13/2023 3:40:00PM

Batch End:

Sample Filtration

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	Matrix	Initial Amount	Final Amount	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	LCS~280-629718/1 N/A	N/A				N/A	N/A	N/A		LCS 280-629718/1-A
2	MB~280-629718/2 N/A	N/A				N/A	N/A	N/A		MB 280-629718/2-A
3	560-113267-A-1 (SM5310_DOC_B)	N/A (560-113267-1)	Water			10/19/23	8_Days	2		560-113267-A-1-D
4	560-113267-A-1~MS (SM5310_DOC_B)	N/A (560-113267-1)	Water			10/19/23	8_Days	2		560-113267-A-1-E MS
5	560-113267-A-1~MSD (SM5310_DOC_B)	N/A (560-113267-1)	Water			10/19/23	8_Days	2		560-113267-A-1-F MSD
6	560-113267-A-2 (SM5310_DOC_B)	N/A (560-113267-1)	Water			10/19/23	8_Days	2		560-113267-A-2-B

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-629718

Analyst: Wondimu, Akewak B

Batch Open: 10/13/2023 3:40:00PM

Batch End:

Batch Notes

Pipette/Syringe/Dispenser ID	BWH 5000, 1000MS,2192132
Filter ID	0000174228-2239-DS
Nitric Acid ID	N/A
Batch Comment	DOC filtration

Comments

FILTRATION Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 280-629718

Analyst: Wondimu, Akewak B

Batch Open: 10/13/2023 3:40:00PM

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness

Other Reagents:

Reagent	Amount/Units	Lot#:

	Analysis	Sample Name	ObjectID
1	NPOC	ICV	0L-10900100866-10101000-134B36527580-0000
2	NPOC	ICB	0L-10900100866-10101000-134B36527580-0001
3	NPOC	LCS	0L-10900100866-10101000-134B36527580-0002
4	NPOC	MB	0L-10900100866-10101000-134B36527580-0003
5	NPOC	TIC	0L-10900100866-10101000-134B36527580-0004
6	NPOC	280-182465-a-8	0L-10900100866-10101000-134B36527580-0005
7	NPOC	MS 280-182465-a-8	0L-10900100866-10101000-134B36527580-0006
8	NPOC	MSD 280-182465-a-8	0L-10900100866-10101000-134B36527580-0007
9	NPOC	280-182465-a-1	0L-10900100866-10101000-134B36527580-0008
10	NPOC	280-182465-a-2	0L-10900100866-10101000-134B36527580-0009
11	NPOC	280-182465-a-4	0L-10900100866-10101000-134B36527580-000A
12	NPOC	280-182465-a-5	0L-10900100866-10101000-134B36527580-000B
13	NPOC	280-182465-a-6	0L-10900100866-10101000-134B36527580-000C
14	NPOC	280-182465-a-7	0L-10900100866-10101000-134B36527580-000D
15	NPOC	CCV	0L-10900100866-10101000-134B36527580-000E
16	NPOC	CCB	0L-10900100866-10101000-134B36527580-000F
17	NPOC	280-182234-d-1	0L-10900100866-10101000-134B36527580-0010
18	NPOC	280-182234-d-2	0L-10900100866-10101000-134B36527580-0011
19	NPOC	280-182320-d-1	0L-10900100866-10101000-134B36527580-0012
20	NPOC	280-182355-e-1	0L-10900100866-10101000-134B36527580-0013
21	NPOC	MS 280-182355-e-1	0L-10900100866-10101000-134B36527580-0014
22	NPOC	MSD 280-182355-e-1	0L-10900100866-10101000-134B36527580-0015
23	NPOC	280-182355-e-2	0L-10900100866-10101000-134B36527580-0016
24	NPOC	280-182355-e-3	0L-10900100866-10101000-134B36527580-0017
25	NPOC	280-182355-e-4	0L-10900100866-10101000-134B36527581-0000
26	NPOC	280-182355-e-5	0L-10900100866-10101000-134B36527581-0001
27	NPOC	CCV	0L-10900100866-10101000-134B36527581-0002
28	NPOC	CCB	0L-10900100866-10101000-134B36527581-0003
29	NPOC	280-182320-d-2	0L-10900100866-10101000-134B36527581-0004
30	NPOC	280-182320-d-3	0L-10900100866-10101000-134B36527581-0005
31	NPOC	280-182443-c-2	0L-10900100866-10101000-134B36527581-0006
32	NPOC	280-182443-c-4	0L-10900100866-10101000-134B36527581-0007
33	NPOC	280-182443-c-7	0L-10900100866-10101000-134B36527581-0008
34	NPOC	LCS	0L-10900100866-10101000-134B36527581-0009
35	NPOC	MB	0L-10900100866-10101000-134B36527581-000A
36	NPOC	TIC	0L-10900100866-10101000-134B36527581-000B
37	NPOC	280-182341-c-1	0L-10900100866-10101000-134B36527581-000C
38	NPOC	MS 280-182341-c-1	0L-10900100866-10101000-134B36527581-000D
39	NPOC	CCV	0L-10900100866-10101000-134B36527581-000E
40	NPOC	CCB	0L-10900100866-10101000-134B36527581-000F
41	NPOC	MSD 280-182341-c-1	0L-10900100866-10101000-134B36527581-0010
42	NPOC	280-182341-d-2	0L-10900100866-10101000-134B36527581-0011
43	NPOC	280-182341-d-3	0L-10900100866-10101000-134B36527581-0012
44	NPOC	280-182341-c-4	0L-10900100866-10101000-134B36527581-0013
45	NPOC	280-182711-c-1	0L-10900100866-10101000-134B36527581-0014
46	NPOC	280-182711-c-2	0L-10900100866-10101000-134B36527581-0015
47	NPOC	280-182711-c-3	0L-10900100866-10101000-134B36527581-0016
48	NPOC	280-182711-c-4	0L-10900100866-10101000-134B36527581-0017
49	NPOC	280-182711-c-5	0L-10900100866-10101000-134B36527581-0018
50	NPOC	280-182243-r-1	0L-10900100866-10101000-134B36527581-0019
51	NPOC	CCV	0L-10900100866-10101000-134B36527581-001A
52	NPOC	CCB	0L-10900100866-10101000-134B36527581-001B
53	NPOC	280-182532-n-1	0L-10900100866-10101000-134B36527581-001C

	Origin	Manual Dilution	Result	Status
1	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:21.14mg/L	Completed
2	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.07803mg	Completed
3	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:25.75mg/L	Completed
4	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.07375mg	Completed
5	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.07241mg	Completed
6	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:2.938mg/L	Completed
7	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:28.27mg/L	Completed
8	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:28.43mg/L	Completed
9	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.7830mg/	Completed
10	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10.00	NPOC:16.51mg/L	Completed
11	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.9792mg/	Completed
12	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:15.97mg/L	Completed
13	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.224mg/L	Completed
14	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.098mg/L	Completed
15	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:25.77mg/L	Completed
16	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.07606mg	Completed
17	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.240mg/L	Completed
18	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.603mg/L	Completed
19	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.453mg/L	Completed
20	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	20.00	NPOC:79.98mg/L	Completed
21	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	20.00	NPOC:588.7mg/L	Completed
22	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	20.00	NPOC:592.6mg/L	Completed
23	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10.00	NPOC:73.86mg/L	Completed
24	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10.00	NPOC:95.41mg/L	Completed
25	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10.00	NPOC:111.2mg/L	Completed
26	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10.00	NPOC:70.11mg/L	Completed
27	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:25.56mg/L	Completed
28	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.08723mg	Completed
29	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:2.202mg/L	Completed
30	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:2.277mg/L	Completed
31	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.9122mg/	Completed
32	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.129mg/L	Completed
33	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.312mg/L	Completed
34	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:25.72mg/L	Completed
35	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.08506mg	Completed
36	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.06179mg	Completed
37	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.024mg/L	Completed
38	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:26.84mg/L	Completed
39	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:25.60mg/L	Completed
40	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.1009mg/	Completed
41	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:26.67mg/L	Completed
42	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.152mg/L	Completed
43	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.9789mg/	Completed
44	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.7963mg/	Completed
45	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.4474mg/	Completed
46	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.2603mg/	Completed
47	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.3655mg/	Completed
48	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.3501mg/	Completed
49	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.2786mg/	Completed
50	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10.00	NPOC:99.44mg/L	Completed
51	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:25.31mg/L	Completed
52	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.07485mg	Completed
53	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	20.00	NPOC:98.03mg/L	Completed

	Date / Time	Vial
1	10/13/2023 9:48:48 PM	1
2	10/13/2023 10:03:38 PM	2
3	10/13/2023 10:26:39 PM	3
4	10/13/2023 10:40:59 PM	4
5	10/13/2023 10:55:10 PM	5
6	10/13/2023 11:15:53 PM	6
7	10/13/2023 11:38:06 PM	7
8	10/14/2023 12:00:31 AM	8
9	10/14/2023 12:18:32 AM	9
10	10/14/2023 12:38:14 AM	10
11	10/14/2023 12:57:00 AM	11
12	10/14/2023 1:19:15 AM	12
13	10/14/2023 1:38:12 AM	13
14	10/14/2023 1:56:39 AM	14
15	10/14/2023 2:19:41 AM	15
16	10/14/2023 2:33:48 AM	16
17	10/14/2023 2:52:53 AM	17
18	10/14/2023 3:12:17 AM	18
19	10/14/2023 3:31:38 AM	19
20	10/14/2023 3:53:06 AM	20
21	10/14/2023 4:15:45 AM	21
22	10/14/2023 4:38:50 AM	22
23	10/14/2023 4:59:34 AM	23
24	10/14/2023 5:20:00 AM	24
25	10/14/2023 5:40:58 AM	25
26	10/14/2023 6:01:28 AM	26
27	10/14/2023 6:23:17 AM	27
28	10/14/2023 6:38:19 AM	28
29	10/14/2023 6:58:22 AM	29
30	10/14/2023 7:18:16 AM	30
31	10/14/2023 7:36:34 AM	31
32	10/14/2023 7:55:28 AM	32
33	10/14/2023 8:14:38 AM	33
34	10/14/2023 8:37:19 AM	34
35	10/14/2023 8:51:56 AM	35
36	10/14/2023 9:06:14 AM	36
37	10/14/2023 9:25:02 AM	37
38	10/14/2023 9:47:53 AM	38
39	10/14/2023 10:11:16 AM	39
40	10/14/2023 10:26:00 AM	40
41	10/14/2023 10:49:08 AM	41
42	10/14/2023 11:08:22 AM	42
43	10/14/2023 11:27:41 AM	43
44	10/14/2023 11:46:27 AM	44
45	10/14/2023 12:04:18 PM	45
46	10/14/2023 12:21:20 PM	46
47	10/14/2023 12:38:51 PM	47
48	10/14/2023 12:55:50 PM	48
49	10/14/2023 1:12:41 PM	49
50	10/14/2023 1:34:20 PM	50
51	10/14/2023 1:56:59 PM	51
52	10/14/2023 2:11:39 PM	52
53	10/14/2023 2:32:30 PM	53

	Analysis	Sample Name	ObjectID
54	NPOC	MS 280-182532-n-1	0L-10900100866-10101000-134B36527581-001D
55	NPOC	MSD 280-182532-n-1	0L-10900100866-10101000-134B36527581-001E
56	NPOC	840-2935-d-1	0L-10900100866-10101000-134B36527581-001F
57	NPOC	840-2935-d-2	0L-10900100866-10101000-134B36527581-0020
58	NPOC	280-182431-c-1	0L-10900100866-10101000-134B36527581-0021
59	NPOC	280-182431-i-2	0L-10900100866-10101000-134B36527581-0022
60	NPOC	280-182431-i-3	0L-10900100866-10101000-134B36527581-0023
61	NPOC	280-182706-c-1	0L-10900100866-10101000-134B36527581-0024
62	NPOC	280-182535-c-2	0L-10900100866-10101000-134B36527581-0025
63	NPOC	CCV	0L-10900100866-10101000-134B36527581-0026
64	NPOC	CCB	0L-10900100866-10101000-134B36527581-0027
65	NPOC	280-182535-c-3	0L-10900100866-10101000-134B36527581-0028
66	NPOC	280-182476-a-3	0L-10900100866-10101000-134B36527581-0029
67	NPOC	lcs 280-629718/1-a	0L-10900100866-10101000-134B36527581-002A
68	NPOC	mb 280-629718/2-a	0L-10900100866-10101000-134B36527581-002B
69	NPOC	560-113267-a-1-d	0L-10900100866-10101000-134B36527581-002C
70	NPOC	560-113267-a-1-e ms	0L-10900100866-10101000-134B36527581-002D
71	NPOC	560-113267-a-1-f msd	0L-10900100866-10101000-134B36527581-002E
72	NPOC	560-113267-a-2-b	0L-10900100866-10101000-134B36527581-002F
73	NPOC	280-182463-e-1	0L-10900100866-10101000-134B36527581-0030
74	NPOC	280-182463-d-2	0L-10900100866-10101000-134B36527581-0031
75	NPOC	CCV	0L-10900100866-10101000-134B36527581-0032
76	NPOC	CCB	0L-10900100866-10101000-134B36527581-0033
77	NPOC	280-182463-e-3	0L-10900100866-10101000-134B36527581-0034
78	NPOC	280-182463-d-4	0L-10900100866-10101000-134B36527581-0035
79	NPOC	280-182463-e-5	0L-10900100866-10101000-134B36527581-0036
80	NPOC	280-182443-c-8	0L-10900100866-10101000-134B36527581-0037
81	NPOC	280-182631-a-4	0L-10900100866-10101000-134B36527581-0038
82	NPOC	280-182533-c-1	0L-10900100866-10101000-134B36527581-0039
83	NPOC	280-182463-e-6	0L-10900100866-10101000-134B36527581-003A
84	NPOC	MS 280-182463-e-6	0L-10900100866-10101000-134B36527581-003B
85	NPOC	MSD 280-182463-e-6	0L-10900100866-10101000-134B36527581-003C
86	NPOC	280-182476-a-1	0L-10900100866-10101000-134B36527581-003D
87	NPOC	CCV	0L-10900100866-10101000-134B36527581-003E
88	NPOC	CCB	0L-10900100866-10101000-134B36527581-003F
89	NPOC	280-182476-a-2	0L-10900100866-10101000-134B36527581-0040
90	NPOC	280-182535-b-4	0L-10900100866-10101000-134B36527581-0041
91	NPOC	280-182535-b-5	0L-10900100866-10101000-134B36527581-0042
92	NPOC	CCV	0L-10900100866-10101000-134B36527581-0043
93	NPOC	CCB	0L-10900100866-10101000-134B36527581-0044

	Origin	Manual Dilution	Result	Status
54	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	20.00	NPOC:622.2mg/L	Completed
55	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	20.00	NPOC:615.7mg/L	Completed
56	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.4396mg/	Completed
57	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.7161mg/	Completed
58	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.352mg/L	Completed
59	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.8044mg/	Completed
60	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.9207mg/	Completed
61	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	2.000	NPOC:46.79mg/L	Completed
62	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.2648mg/	Completed
63	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:25.55mg/L	Completed
64	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.06932mg	Completed
65	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.2109mg/	Completed
66	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	25.00	NPOC:10719mg/L	Completed
67	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:26.26mg/L	Completed
68	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.1828mg/	Completed
69	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	5.000	NPOC:10.49mg/L	Completed
70	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	5.000	NPOC:140.3mg/L	Completed
71	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	5.000	NPOC:141.0mg/L	Completed
72	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	5.000	NPOC:7.231mg/L	Completed
73	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	25.00	NPOC:546.1mg/L	Completed
74	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	25.00	NPOC:688.2mg/L	Completed
75	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:25.46mg/L	Completed
76	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.1549mg/	Completed
77	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	20.00	NPOC:138.7mg/L	Completed
78	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	2.000	NPOC:47.72mg/L	Completed
79	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	20.00	NPOC:83.54mg/L	Completed
80	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:1.042mg/L	Completed
81	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10.00	NPOC:151.5mg/L	Completed
82	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.5711mg/	Completed
83	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	5.000	NPOC:100.4mg/L	Completed
84	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	5.000	NPOC:227.7mg/L	Completed
85	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	5.000	NPOC:226.0mg/L	Completed
86	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	25.00	NPOC:9922mg/L	Completed
87	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:25.66mg/L	Completed
88	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.1846mg/	Completed
89	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	25.00	NPOC:9527mg/L	Completed
90	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.3926mg/	Completed
91	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.2942mg/	Completed
92	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:25.77mg/L	Completed
93	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	1.000	NPOC:0.07969mg	Completed

	Date / Time	Vial
54	10/14/2023 2:54:44 PM	54
55	10/14/2023 3:16:39 PM	55
56	10/14/2023 3:34:06 PM	56
57	10/14/2023 3:52:06 PM	57
58	10/14/2023 4:11:34 PM	58
59	10/14/2023 4:30:26 PM	59
60	10/14/2023 4:49:15 PM	60
61	10/14/2023 5:11:48 PM	61
62	10/14/2023 5:28:24 PM	62
63	10/14/2023 5:51:06 PM	63
64	10/14/2023 6:05:21 PM	64
65	10/14/2023 6:21:50 PM	65
66	10/14/2023 6:46:53 PM	66
67	10/14/2023 7:09:18 PM	67
68	10/14/2023 7:25:30 PM	68
69	10/14/2023 7:45:44 PM	69
70	10/14/2023 8:08:24 PM	70
71	10/14/2023 8:31:20 PM	71
72	10/14/2023 8:51:02 PM	72
73	10/14/2023 9:13:46 PM	73
74	10/14/2023 9:35:57 PM	74
75	10/14/2023 9:58:21 PM	75
76	10/14/2023 10:14:13 PM	76
77	10/14/2023 10:35:51 PM	77
78	10/14/2023 10:57:57 PM	78
79	10/14/2023 11:18:13 PM	79
80	10/14/2023 11:36:31 PM	80
81	10/14/2023 11:57:55 PM	81
82	10/15/2023 12:15:43 AM	82
83	10/15/2023 12:37:50 AM	83
84	10/15/2023 1:01:02 AM	84
85	10/15/2023 1:23:23 AM	85
86	10/15/2023 1:47:33 AM	86
87	10/15/2023 2:09:37 AM	87
88	10/15/2023 2:26:04 AM	88
89	10/15/2023 2:50:52 AM	89
90	10/15/2023 3:07:57 AM	90
91	10/15/2023 3:24:47 AM	91
92	10/15/2023 3:47:27 AM	92
93	10/15/2023 4:02:14 AM	93

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC Calibration 10 31 2022.2023 08 30 17 37 36.cal

Date of Creation	8/30/2023 7:35:40 PM
User	KG
System	TOC-LCSN

Cal. Curve

Sample Name:	NPOC Calibration_SHI7_AutoDilution_Calibration_08_30_2023
Sample ID:	Auto Dilution Calibration SHI7 08 30 2023
Object ID	0L-10900100866-10101000-134B2AE29A9A-0000
Cal. Curve:	NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status	Completed
Comment:	

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.05090	50uL	1.000	*******		8/30/2023 5:46:03 PM
2	0.000	50uL	1.000	*******		8/30/2023 5:48:12 PM
3	0.000	50uL	1.000	*******		8/30/2023 5:50:21 PM
4	0.000	50uL	1.000	*******		8/30/2023 5:52:26 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	0.01273
SD Area	0.02545
CV Area	200.00%
Vial	88
No Washes	2

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.864	50uL	50.00	*******		8/30/2023 6:02:05 PM
2	1.662	50uL	50.00	*******		8/30/2023 6:05:03 PM
3	2.247	50uL	50.00	*******		8/30/2023 6:08:10 PM
4	1.771	50uL	50.00	*******		8/30/2023 6:11:06 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	1.886
SD Area	0.2544
CV Area	13.49%
Vial	89
No Washes	2

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	12.45	50uL	10.00	*******		8/30/2023 6:20:05 PM
2	13.41	50uL	10.00	*******		8/30/2023 6:23:53 PM
3	12.88	50uL	10.00	*******		8/30/2023 6:27:23 PM
4	12.86	50uL	10.00	*******		8/30/2023 6:31:07 PM

Acid Add.	1.500%
Sparge Gas Flow	80mL/min
Sp. Time	90.00sec
Mean Area	12.90
SD Area	0.3935
CV Area	3.05%
Vial	89
No Washes	2

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	25.15	50uL	5.000	*******		8/30/2023 6:40:15 PM
2	25.91	50uL	5.000	*******		8/30/2023 6:44:09 PM
3	27.28	50uL	5.000	*******		8/30/2023 6:47:57 PM
4	27.04	50uL	5.000	*******		8/30/2023 6:51:51 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 26.35
SD Area 0.9957
CV Area 3.78%
Vial 89
No Washes 2

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	65.16	50uL	2.000	*******		8/30/2023 7:01:21 PM
2	65.90	50uL	2.000	*******		8/30/2023 7:05:24 PM
3	66.08	50uL	2.000	*******		8/30/2023 7:09:38 PM
4	67.21	50uL	2.000	*******		8/30/2023 7:13:46 PM

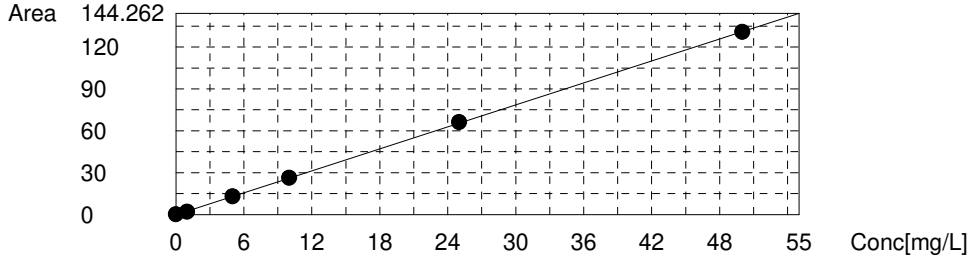
Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 66.09
SD Area 0.8476
CV Area 1.28%
Vial 89
No Washes 2

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	129.0	50uL	1.000	*******		8/30/2023 7:22:43 PM
2	130.1	50uL	1.000	*******		8/30/2023 7:27:11 PM
3	132.9	50uL	1.000	*******		8/30/2023 7:31:26 PM
4	131.3	50uL	1.000	*******		8/30/2023 7:35:40 PM

Acid Add. 1.500%
Sparge Gas Flow 80mL/min
Sp. Time 90.00sec
Mean Area 130.8
SD Area 1.672
CV Area 1.28%
Vial 89
No Washes 2

Slope: 2.626
Intercept -0.1512
r^2 0.9999
r 1.0000
RSE(%) N/A
Zero Shift No



TOC-Control L Report

ABW
2023_10_13_001.tlx

Instr.Information

Instrument Options TOC/ASI/
Catalyst Regular Sensitivity

Sample

Sample Name: ICV
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

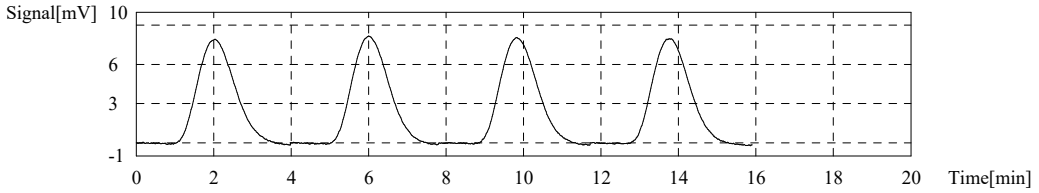
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.55	21.21mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 9:36:03 PM
2	55.62	21.24mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 9:40:08 PM
3	54.99	21.00mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 9:44:22 PM
4	55.32	21.12mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 9:48:48 PM

Mean Area 55.37
Mean Conc. 21.14mg/L



Sample

Sample Name: ICB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

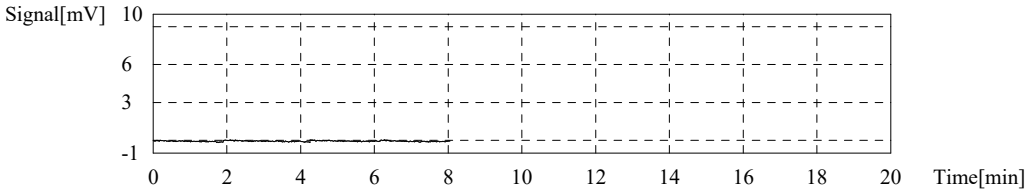
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07803mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.08010	0.08808mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 9:56:39 PM
2	0.1348	0.1089mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 9:59:19 PM
3	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:01:28 PM
4	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:03:38 PM

Mean Area 0.05373
Mean Conc. 0.07803mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

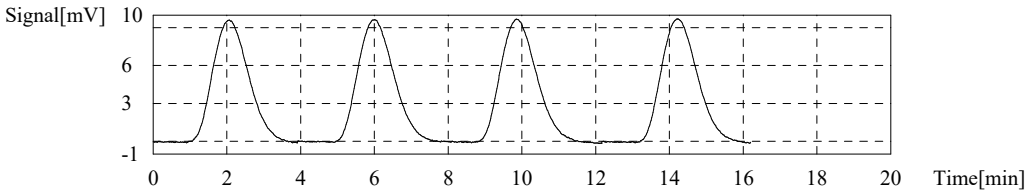
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.75mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.64	25.43mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:13:29 PM
2	66.70	25.46mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:17:38 PM
3	68.57	26.17mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:22:15 PM
4	67.95	25.93mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:26:39 PM

Mean Area 67.47
Mean Conc. 25.75mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

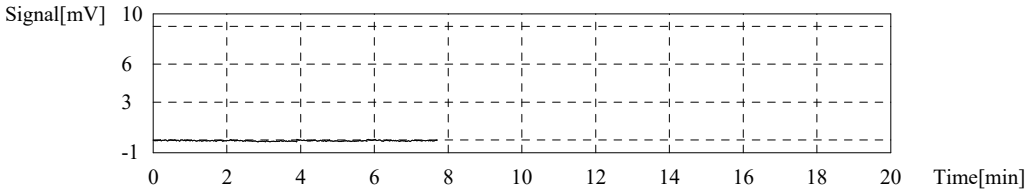
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07375mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.08250	0.08899mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:34:30 PM
2	0.03250	0.06995mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:36:41 PM
3	0.05490	0.07848mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:38:50 PM
4	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:40:59 PM

Mean Area 0.04247
Mean Conc. 0.07375mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

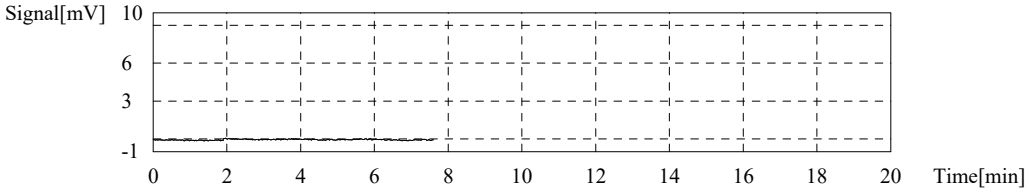
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07241mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.03640	0.07144mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:48:50 PM
2	0.01880	0.06473mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:50:55 PM
3	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:53:05 PM
4	0.1006	0.09588mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 10:55:10 PM

Mean Area 0.03895
Mean Conc. 0.07241mg/L



Sample

Sample Name: 280-182465-a-8
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

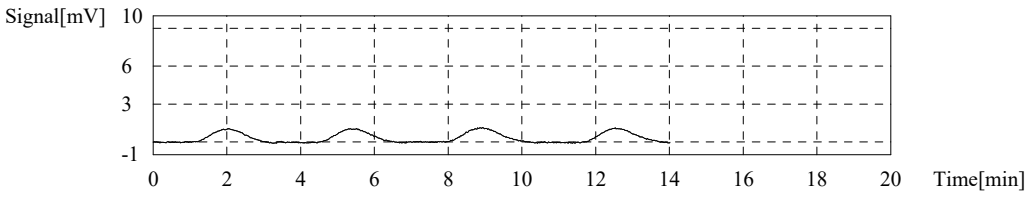
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.938mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.392	2.873mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:04:28 PM
2	7.231	2.811mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:08:15 PM
3	7.910	3.070mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:12:08 PM
4	7.722	2.998mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:15:53 PM

Mean Area 7.564
Mean Conc. 2.938mg/L



Sample

Sample Name: MS 280-182465-a-8
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

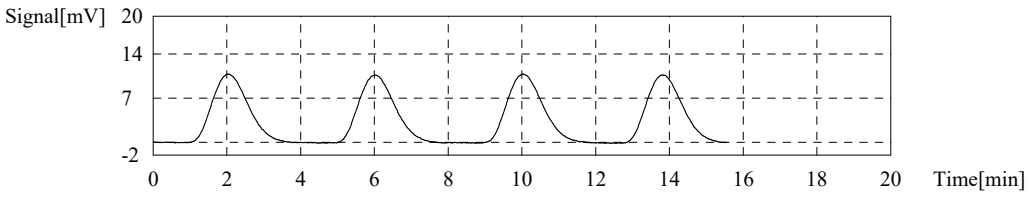
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.27mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.44	28.41mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:25:47 PM
2	74.05	28.26mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:30:00 PM
3	74.14	28.29mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:34:03 PM
4	73.69	28.12mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:38:06 PM

Mean Area 74.08
Mean Conc. 28.27mg/L



Sample

Sample Name: MSD 280-182465-a-8
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

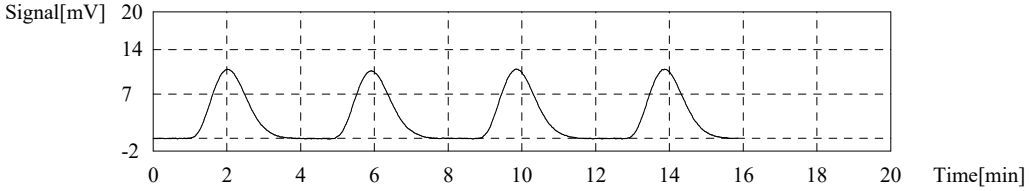
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:28.43mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	74.50	28.43mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:47:54 PM
2	73.85	28.18mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:52:03 PM
3	75.10	28.66mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/13/2023 11:56:15 PM
4	74.61	28.47mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:00:31 AM

Mean Area 74.52
Mean Conc. 28.43mg/L



Sample

Sample Name: 280-182465-a-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

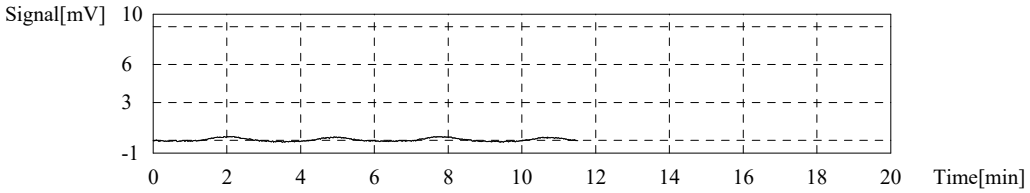
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7830mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.063	0.8432mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:09:22 AM
2	1.875	0.7716mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:12:26 AM
3	2.077	0.8485mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:15:32 AM
4	1.605	0.6688mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:18:32 AM

Mean Area 1.905
Mean Conc. 0.7830mg/L



Sample

Sample Name: 280-182465-a-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

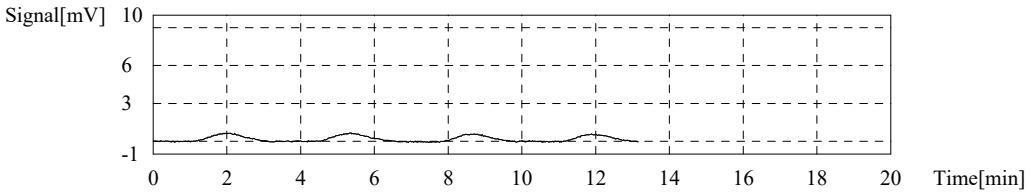
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:16.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.652	18.29mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:27:48 AM
2	4.454	17.54mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:31:20 AM
3	3.907	15.45mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:34:48 AM
4	3.721	14.75mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:38:14 AM

Mean Area 4.184
Mean Conc. 16.51mg/L



Sample

Sample Name: 280-182465-a-4
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

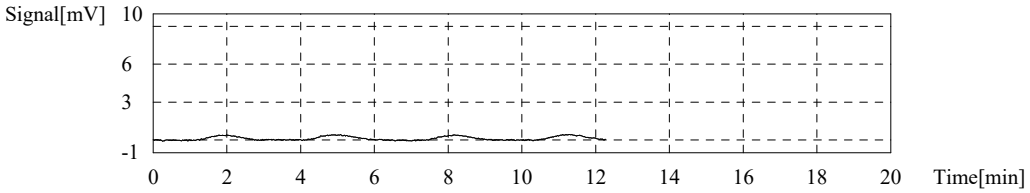
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9792mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.187	0.8904mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:47:08 AM
2	2.436	0.9852mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:50:33 AM
3	2.487	1.005mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:53:49 AM
4	2.571	1.037mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:57:00 AM

Mean Area 2.420
Mean Conc. 0.9792mg/L



Sample

Sample Name: 280-182465-a-5
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

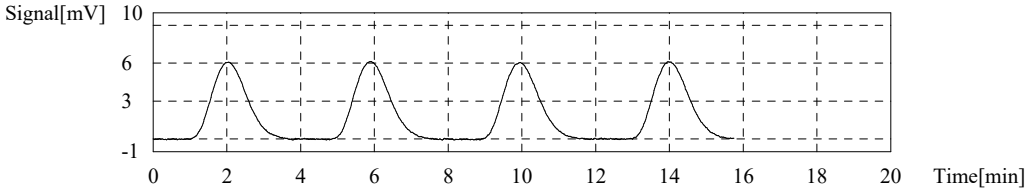
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.97mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	41.91	16.02mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:06:48 AM
2	42.05	16.07mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:11:00 AM
3	41.84	15.99mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:15:16 AM
4	41.29	15.78mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:19:15 AM

Mean Area 41.77
Mean Conc. 15.97mg/L



Sample

Sample Name: 280-182465-a-6
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

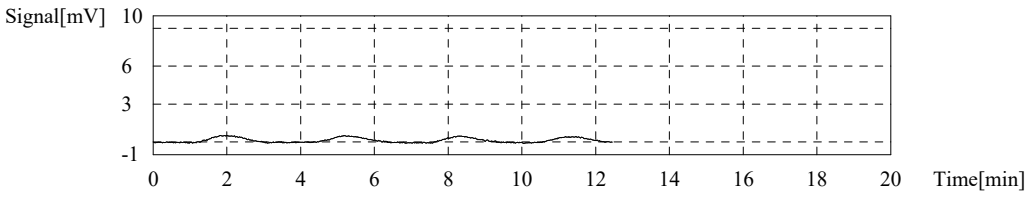
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.224mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.474	1.381mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:28:28 AM
2	3.017	1.206mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:31:44 AM
3	2.728	1.096mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:34:52 AM
4	3.034	1.213mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:38:12 AM

Mean Area 3.063
Mean Conc. 1.224mg/L



Sample

Sample Name: 280-182465-a-7
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

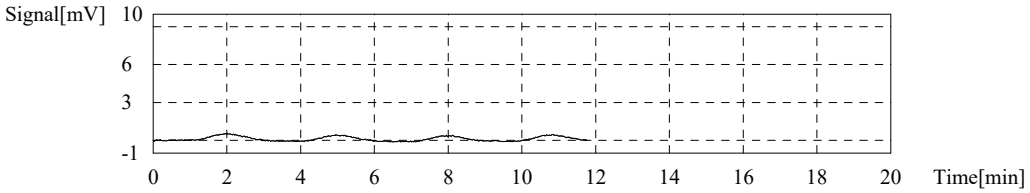
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.098mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.807	1.127mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:47:07 AM
2	2.732	1.098mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:50:20 AM
3	2.522	1.018mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:53:19 AM
4	2.871	1.151mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:56:39 AM

Mean Area 2.733
Mean Conc. 1.098mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

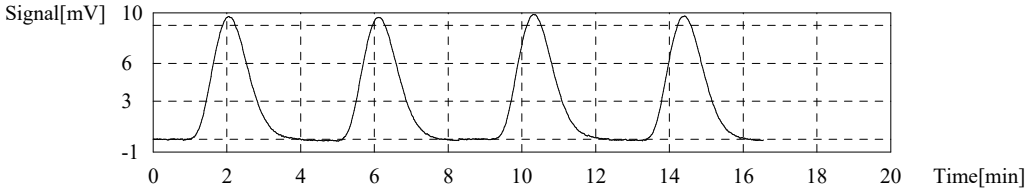
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.77mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	67.25	25.67mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:06:39 AM
2	67.63	25.81mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:11:03 AM
3	67.49	25.76mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:15:19 AM
4	67.73	25.85mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:19:41 AM

Mean Area 67.53
Mean Conc. 25.77mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

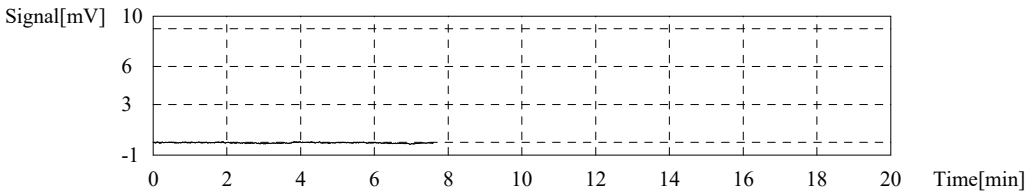
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07606mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.06830	0.08358mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:27:31 AM
2	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:29:36 AM
3	0.05610	0.07894mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:31:41 AM
4	0.06980	0.08416mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:33:48 AM

Mean Area 0.04855
Mean Conc. 0.07606mg/L



Sample

Sample Name: 280-182234-d-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

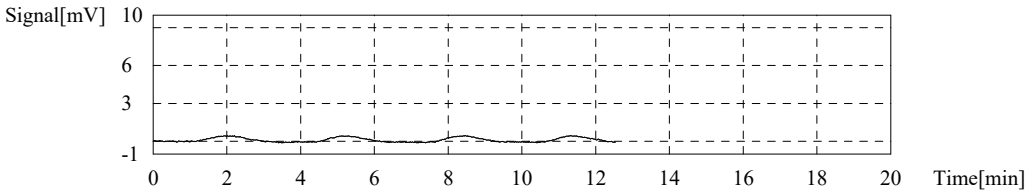
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.240mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.990	1.196mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:42:57 AM
2	3.293	1.312mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:46:21 AM
3	2.912	1.166mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:49:31 AM
4	3.222	1.285mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:52:53 AM

Mean Area 3.104
Mean Conc. 1.240mg/L



Sample

Sample Name: 280-182234-d-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

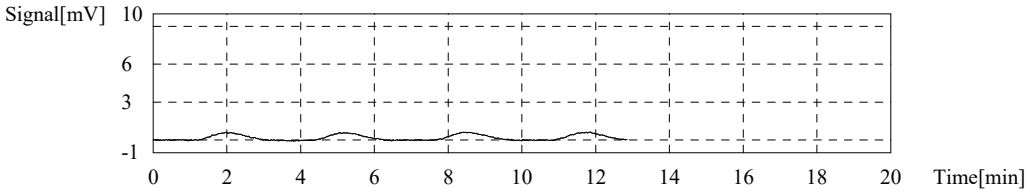
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.603mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.061	1.604mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:02:01 AM
2	4.296	1.694mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:05:31 AM
3	3.846	1.522mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:08:58 AM
4	4.033	1.593mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:12:17 AM

Mean Area 4.059
Mean Conc. 1.603mg/L



Sample

Sample Name: 280-182320-d-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

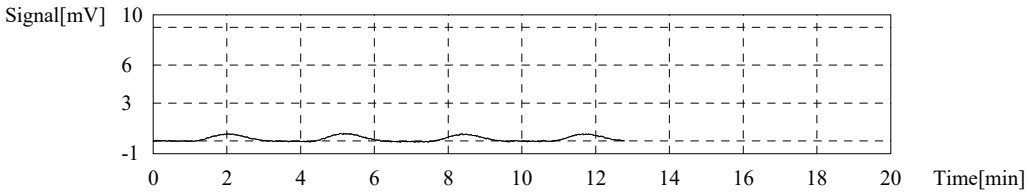
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.453mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.514	1.396mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:21:23 AM
2	4.137	1.633mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:24:47 AM
3	3.698	1.466mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:28:20 AM
4	3.307	1.317mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:31:38 AM

Mean Area 3.664
Mean Conc. 1.453mg/L



Sample

Sample Name: 280-182355-e-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

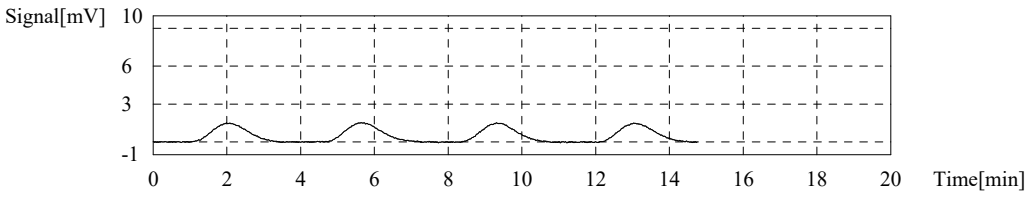
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:79.98mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.21	78.91mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:41:16 AM
2	10.66	82.34mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:45:10 AM
3	10.01	77.39mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:49:05 AM
4	10.52	81.27mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:53:06 AM

Mean Area 10.35
Mean Conc. 79.98mg/L



Sample

Sample Name: MS 280-182355-e-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

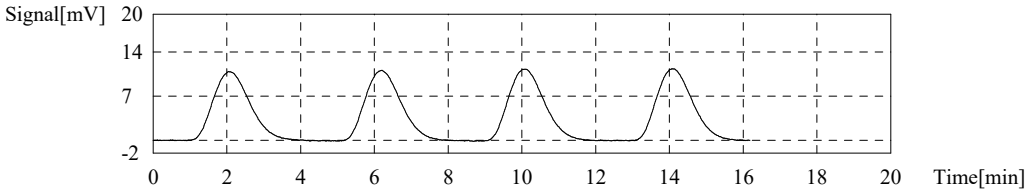
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:588.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.32	582.4mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:03:09 AM
2	75.86	578.9mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:07:14 AM
3	78.14	596.3mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:11:27 AM
4	78.28	597.4mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:15:45 AM

Mean Area 77.15
Mean Conc. 588.7mg/L



Sample

Sample Name: MSD 280-182355-e-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

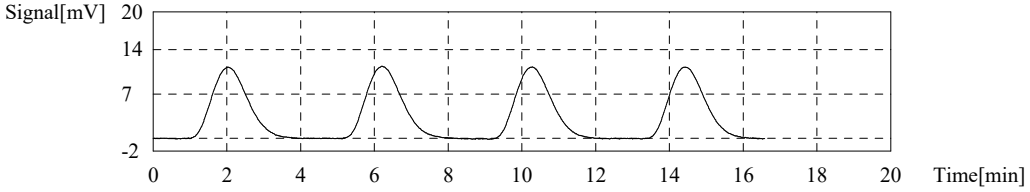
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:592.6mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	76.95	587.2mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:25:52 AM
2	78.05	595.6mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:30:08 AM
3	77.68	592.8mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:34:28 AM
4	77.93	594.7mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:38:50 AM

Mean Area 77.65
Mean Conc. 592.6mg/L



Sample

Sample Name: 280-182355-e-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

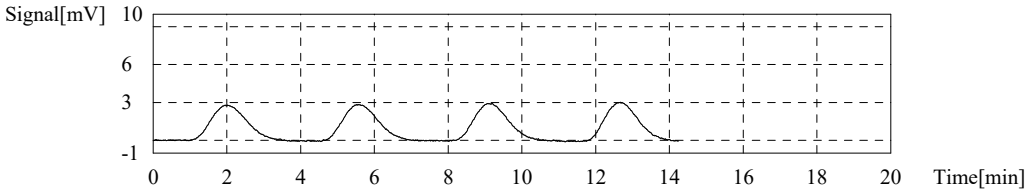
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:73.86mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.77	72.05mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:48:20 AM
2	19.50	74.83mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:52:06 AM
3	18.96	72.78mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:55:52 AM
4	19.75	75.79mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:59:34 AM

Mean Area 19.24
Mean Conc. 73.86mg/L



Sample

Sample Name: 280-182355-e-3
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

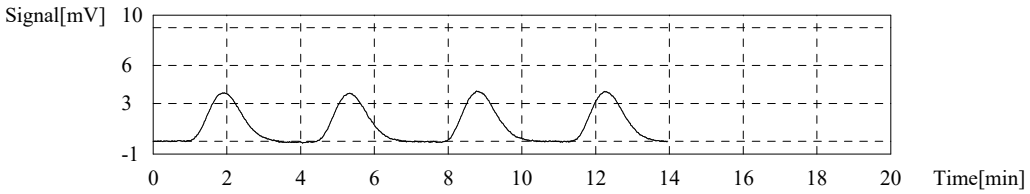
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:95.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.67	94.52mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:08:54 AM
2	24.76	94.86mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:12:36 AM
3	25.11	96.20mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:16:16 AM
4	25.07	96.05mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:20:00 AM

Mean Area 24.90
Mean Conc. 95.41mg/L



Sample

Sample Name: 280-182355-e-4
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

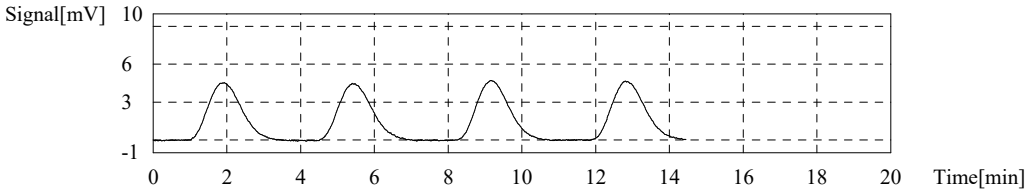
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:111.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.79	110.2mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:29:27 AM
2	28.47	109.0mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:33:25 AM
3	29.49	112.9mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:37:17 AM
4	29.43	112.6mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:40:58 AM

Mean Area 29.05
Mean Conc. 111.2mg/L



Sample

Sample Name: 280-182355-e-5
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

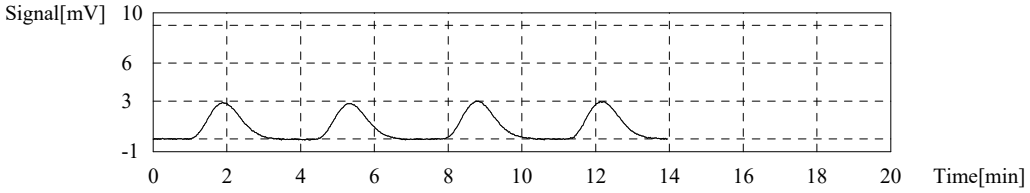
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:70.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.81	68.40mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:50:19 AM
2	17.95	68.93mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:53:59 AM
3	18.40	70.65mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:57:35 AM
4	18.88	72.47mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:01:28 AM

Mean Area 18.26
Mean Conc. 70.11mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

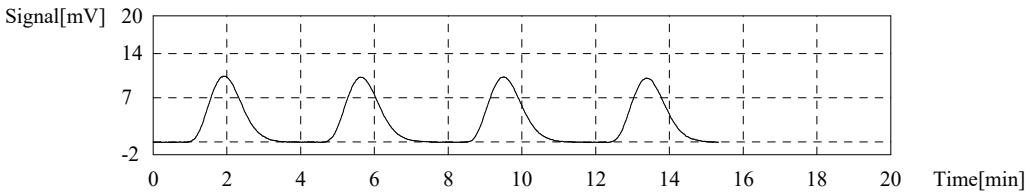
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.56mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.36	25.33mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:11:05 AM
2	67.00	25.57mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:15:08 AM
3	67.63	25.81mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:19:10 AM
4	66.84	25.51mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:23:17 AM

Mean Area 66.96
Mean Conc. 25.56mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

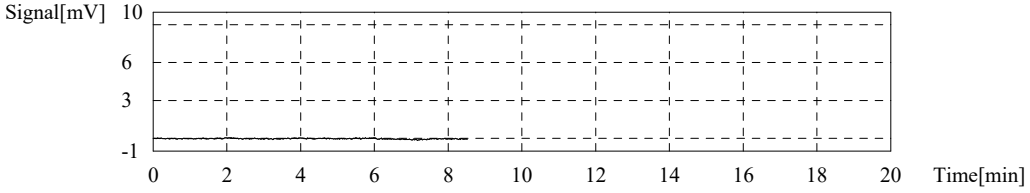
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08723mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.01780	0.06435mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:31:07 AM
2	0.09720	0.09459mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:33:31 AM
3	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:35:38 AM
4	0.1965	0.1324mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:38:19 AM

Mean Area 0.07788
Mean Conc. 0.08723mg/L



Sample

Sample Name: 280-182320-d-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

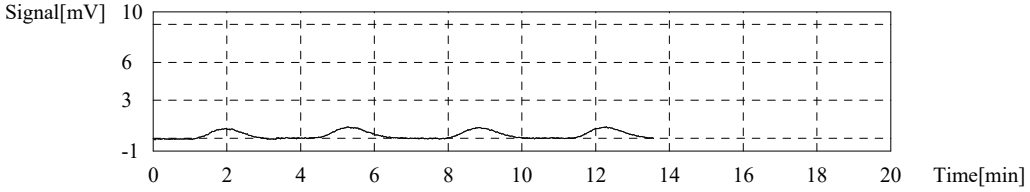
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.202mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.528	2.163mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:47:35 AM
2	5.698	2.227mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:51:16 AM
3	5.665	2.215mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:54:52 AM
4	5.635	2.203mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:58:22 AM

Mean Area 5.632
Mean Conc. 2.202mg/L



Sample

Sample Name: 280-182320-d-3
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

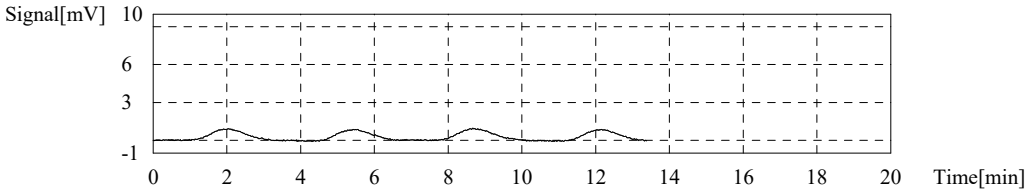
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.277mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.036	2.356mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:07:42 AM
2	5.692	2.225mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:11:13 AM
3	5.888	2.300mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:14:48 AM
4	5.700	2.228mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:18:16 AM

Mean Area 5.829
Mean Conc. 2.277mg/L



Sample

Sample Name: 280-182443-c-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

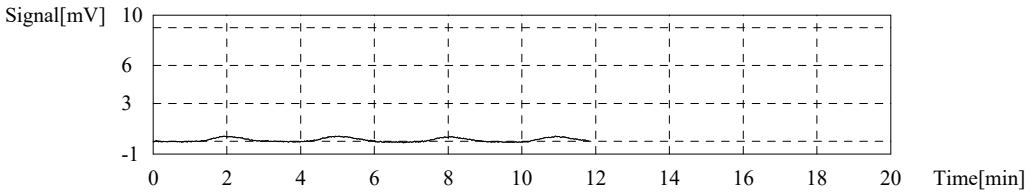
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9122mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.442	0.9875mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:27:10 AM
2	2.311	0.9376mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:30:24 AM
3	2.151	0.8767mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:33:28 AM
4	2.073	0.8470mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:36:34 AM

Mean Area 2.244
Mean Conc. 0.9122mg/L



Sample

Sample Name: 280-182443-c-4
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

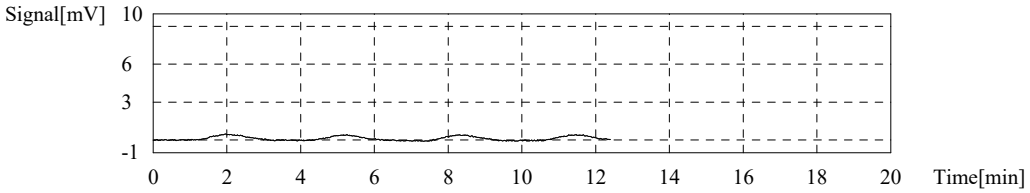
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.129mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.259	1.299mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:45:41 AM
2	2.776	1.115mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:49:01 AM
3	2.862	1.147mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:52:17 AM
4	2.357	0.9551mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:55:28 AM

Mean Area 2.814
Mean Conc. 1.129mg/L



Sample

Sample Name: 280-182443-c-7
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

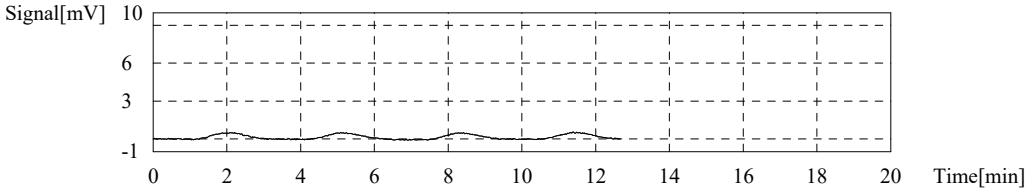
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.312mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.169	1.264mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:04:31 AM
2	3.299	1.314mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:07:55 AM
3	3.427	1.363mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:11:11 AM
4	3.285	1.309mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:14:38 AM

Mean Area 3.295
Mean Conc. 1.312mg/L



Sample

Sample Name: LCS
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

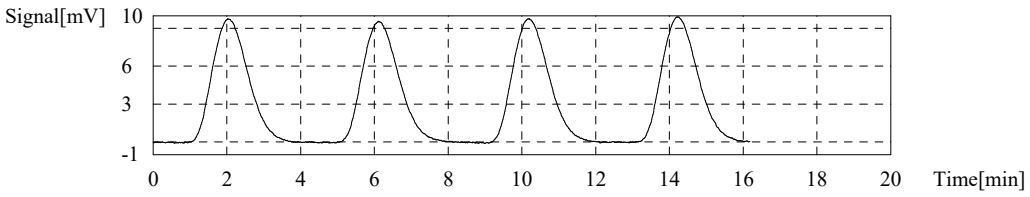
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.72mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	67.00	25.57mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:24:38 AM
2	66.40	25.34mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:28:54 AM
3	67.89	25.91mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:33:08 AM
4	68.23	26.04mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:37:19 AM

Mean Area 67.38
Mean Conc. 25.72mg/L



Sample

Sample Name: MB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

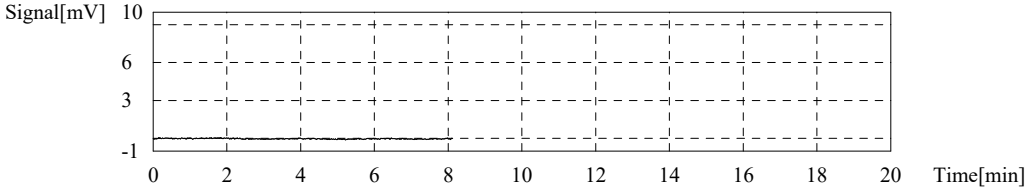
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.08506mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.07460	0.08598mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:45:10 AM
2	0.1476	0.1138mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:47:46 AM
3	0.06650	0.08290mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:49:51 AM
4	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:51:56 AM

Mean Area 0.07218
Mean Conc. 0.08506mg/L



Sample

Sample Name: TIC
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

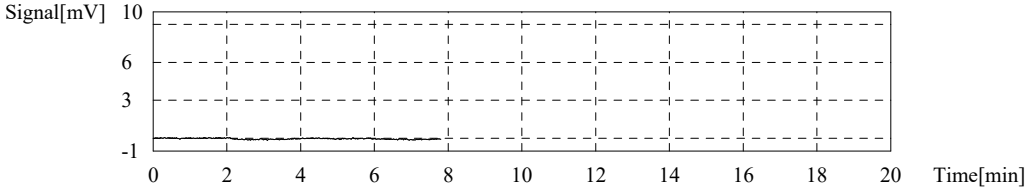
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06179mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:59:59 AM
2	0.01080	0.06169mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:02:04 AM
3	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:04:09 AM
4	0.03350	0.07033mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:06:14 AM

Mean Area 0.01108
Mean Conc. 0.06179mg/L



Sample

Sample Name: 280-182341-c-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

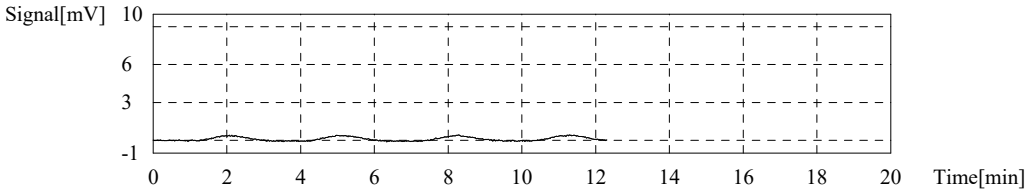
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.024mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.284	0.9273mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:15:14 AM
2	2.719	1.093mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:18:31 AM
3	2.478	1.001mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:21:45 AM
4	2.669	1.074mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:25:02 AM

Mean Area 2.538
Mean Conc. 1.024mg/L



Sample

Sample Name: MS 280-182341-c-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

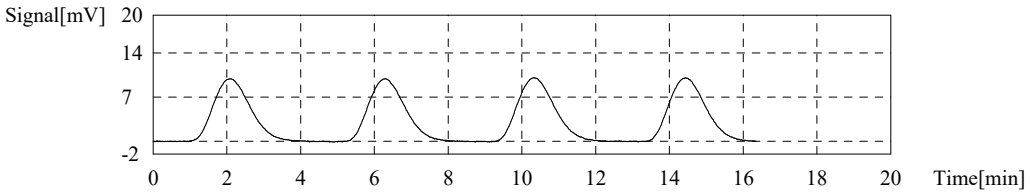
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.84mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	70.05	26.73mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:35:11 AM
2	69.11	26.38mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:39:25 AM
3	71.78	27.39mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:43:43 AM
4	70.39	26.86mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:47:53 AM

Mean Area 70.33
Mean Conc. 26.84mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

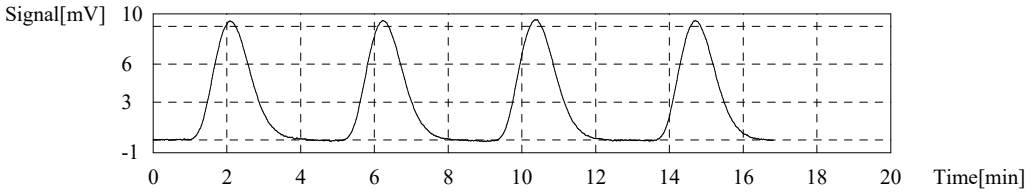
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.15	25.25mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:57:59 AM
2	66.99	25.57mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:02:22 AM
3	68.24	26.04mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:06:53 AM
4	66.89	25.53mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:11:16 AM

Mean Area 67.07
Mean Conc. 25.60mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

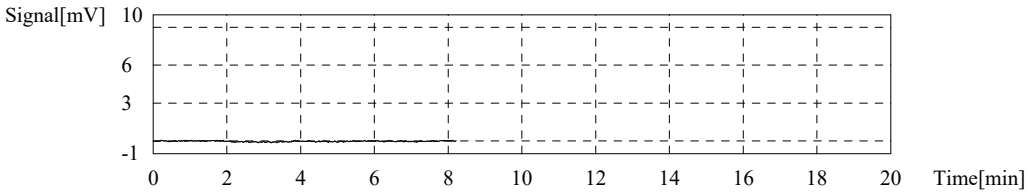
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1009mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.08220	0.08888mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:19:07 AM
2	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:21:12 AM
3	0.2415	0.1495mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:23:47 AM
4	0.1318	0.1078mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:26:00 AM

Mean Area 0.1139
Mean Conc. 0.1009mg/L



Sample

Sample Name: MSD 280-182341-c-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

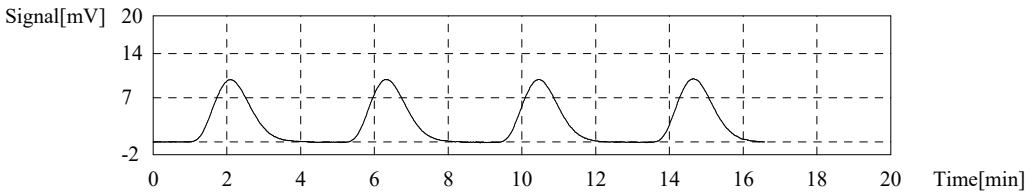
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.67mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.66	26.58mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:36:11 AM
2	69.58	26.55mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:40:32 AM
3	70.10	26.75mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:44:56 AM
4	70.24	26.81mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:49:08 AM

Mean Area 69.90
Mean Conc. 26.67mg/L



Sample

Sample Name: 280-182341-d-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

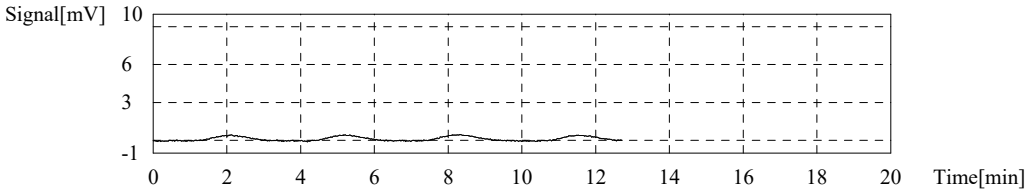
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.152mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.582	1.041mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:58:14 AM
2	2.732	1.098mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:01:27 AM
3	3.234	1.289mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:04:56 AM
4	2.952	1.182mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:08:22 AM

Mean Area 2.875
Mean Conc. 1.152mg/L



Sample

Sample Name: 280-182341-d-3
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

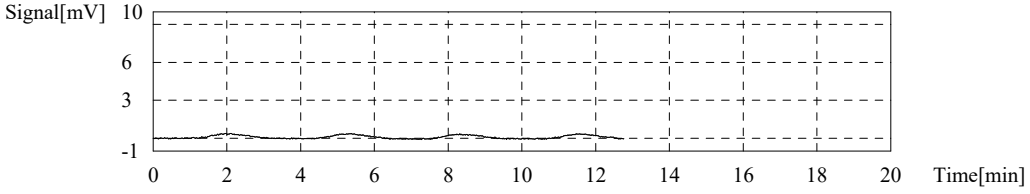
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9789mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.399	0.9711mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:17:31 AM
2	2.195	0.8935mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:20:50 AM
3	2.385	0.9658mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:24:13 AM
4	2.699	1.085mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:27:41 AM

Mean Area 2.420
Mean Conc. 0.9789mg/L



Sample

Sample Name: 280-182341-c-4
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

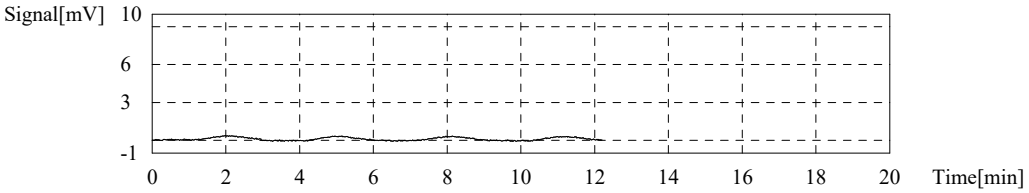
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7963mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.516	0.6349mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:36:35 AM
2	1.962	0.8047mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:39:51 AM
3	2.210	0.8992mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:43:05 AM
4	2.071	0.8462mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:46:27 AM

Mean Area 1.940
Mean Conc. 0.7963mg/L



Sample

Sample Name: 280-182711-c-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

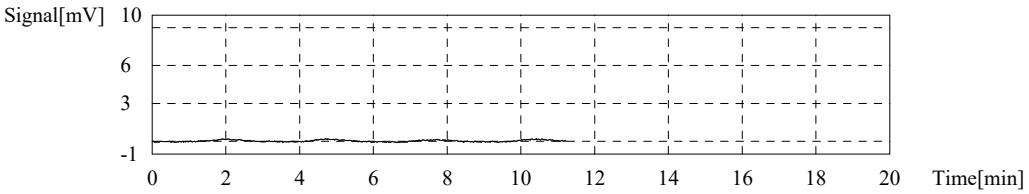
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4474mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.113	0.4814mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:55:17 AM
2	0.9411	0.4160mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:58:17 AM
3	0.9726	0.4280mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:01:15 PM
4	1.068	0.4643mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:04:18 PM

Mean Area 1.024
Mean Conc. 0.4474mg/L



Sample

Sample Name: 280-182711-c-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

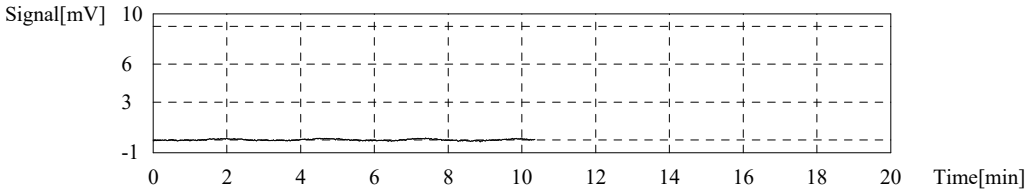
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2603mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6771	0.3154mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:12:51 PM
2	0.8096	0.3659mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:15:51 PM
3	0.3826	0.2033mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:18:31 PM
4	0.2602	0.1567mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:21:20 PM

Mean Area 0.5324
Mean Conc. 0.2603mg/L



Sample

Sample Name: 280-182711-c-3
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

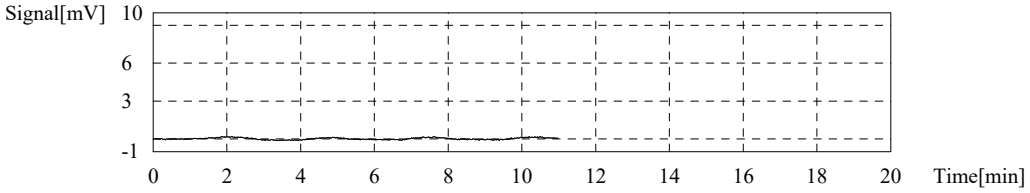
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3655mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.122	0.4848mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:30:04 PM
2	0.4785	0.2398mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:32:58 PM
3	1.124	0.4856mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:35:58 PM
4	0.5096	0.2516mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:38:51 PM

Mean Area 0.8085
Mean Conc. 0.3655mg/L



Sample

Sample Name: 280-182711-c-4
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

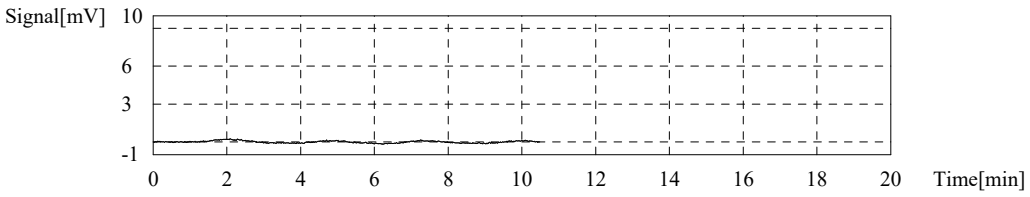
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3501mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8925	0.3974mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:47:36 PM
2	0.7239	0.3332mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:50:18 PM
3	0.7300	0.3356mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:53:09 PM
4	0.7264	0.3342mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 12:55:50 PM

Mean Area 0.7682
Mean Conc. 0.3501mg/L



Sample

Sample Name: 280-182711-c-5
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

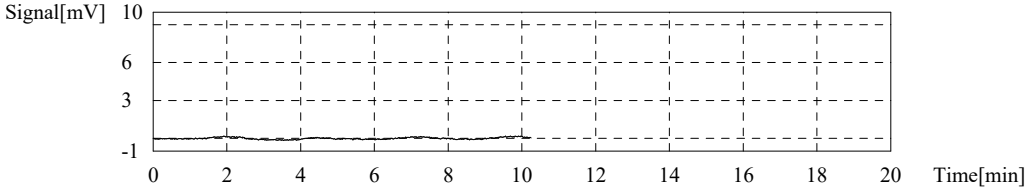
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2786mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5870	0.2811mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:04:16 PM
2	0.7401	0.3394mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:07:08 PM
3	0.7645	0.3487mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:10:00 PM
4	0.2301	0.1452mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:12:41 PM

Mean Area 0.5804
Mean Conc. 0.2786mg/L



Sample

Sample Name: 280-182243-r-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

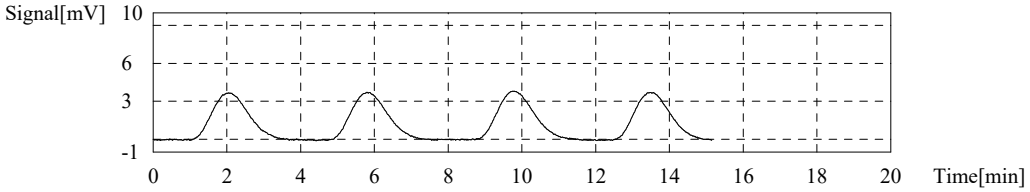
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:99.44mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.72	98.52mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:22:22 PM
2	26.38	101.0mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:26:32 PM
3	26.14	100.1mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:30:27 PM
4	25.61	98.10mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:34:20 PM

Mean Area 25.96
Mean Conc. 99.44mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

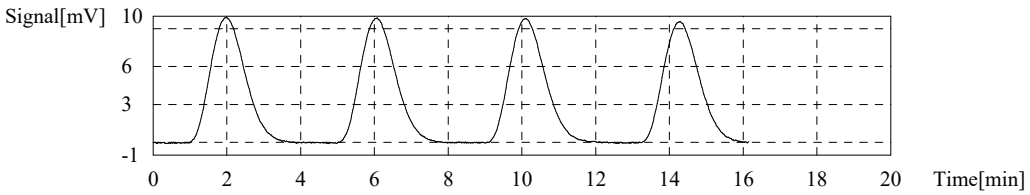
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.31mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.58	25.41mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:44:20 PM
2	66.26	25.29mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:48:31 PM
3	67.03	25.58mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:52:52 PM
4	65.38	24.96mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 1:56:59 PM

Mean Area 66.31
Mean Conc. 25.31mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

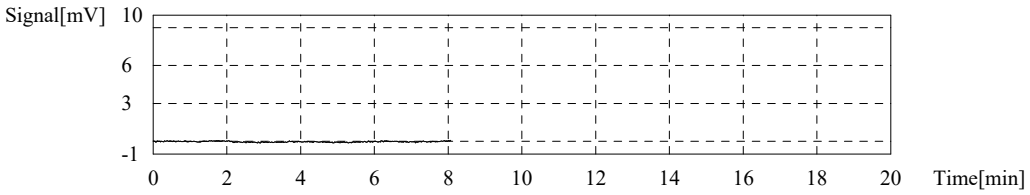
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07485mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.05010	0.07665mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:05:01 PM
2	0.02180	0.06588mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:07:12 PM
3	0.04240	0.07372mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:09:34 PM
4	0.06720	0.08317mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:11:39 PM

Mean Area 0.04538
Mean Conc. 0.07485mg/L



Sample

Sample Name: 280-182532-n-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

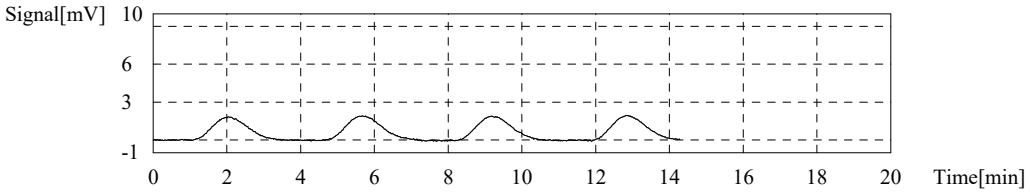
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:98.03mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.26	94.53mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:21:14 PM
2	12.94	99.71mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:24:57 PM
3	13.12	101.1mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:28:54 PM
4	12.56	96.81mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:32:30 PM

Mean Area 12.72
Mean Conc. 98.03mg/L



Sample

Sample Name: MS 280-182532-n-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

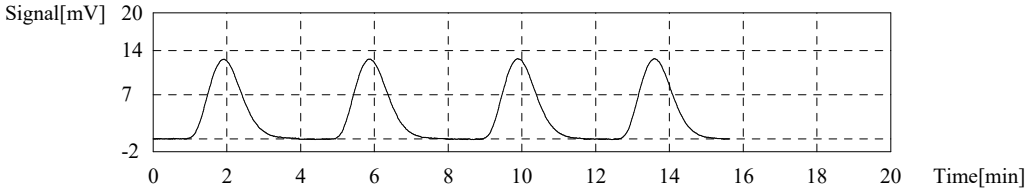
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:622.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	81.29	620.3mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:42:24 PM
2	82.00	625.7mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:46:42 PM
3	81.40	621.1mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:50:36 PM
4	81.50	621.9mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 2:54:44 PM

Mean Area 81.55
Mean Conc. 622.2mg/L



Sample

Sample Name: MSD 280-182532-n-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

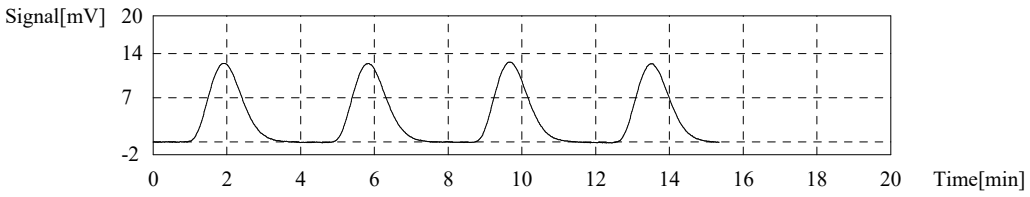
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:615.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.43	613.7mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:04:36 PM
2	81.11	618.9mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:08:39 PM
3	81.25	620.0mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:12:43 PM
4	79.98	610.3mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:16:39 PM

Mean Area 80.69
Mean Conc. 615.7mg/L



Sample

Sample Name: 840-2935-d-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

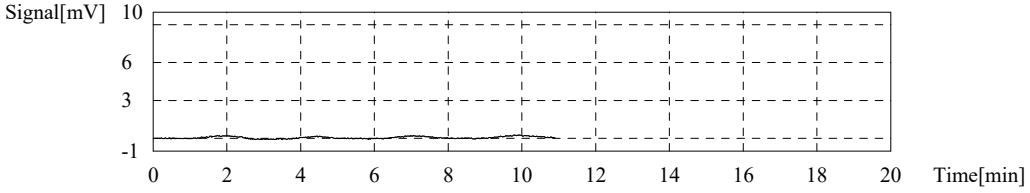
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4396mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8657	0.3872mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:25:08 PM
2	0.8574	0.3841mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:27:56 PM
3	1.020	0.4460mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:30:56 PM
4	1.270	0.5412mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:34:06 PM

Mean Area 1.003
Mean Conc. 0.4396mg/L



Sample

Sample Name: 840-2935-d-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

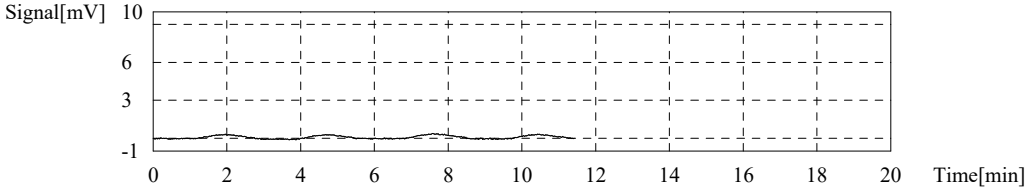
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7161mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.473	0.6185mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:42:49 PM
2	1.784	0.7369mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:45:54 PM
3	1.730	0.7164mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:48:59 PM
4	1.930	0.7925mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 3:52:06 PM

Mean Area 1.729
Mean Conc. 0.7161mg/L



Sample

Sample Name: 280-182431-c-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

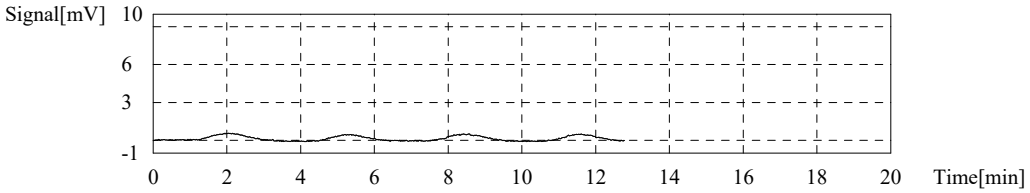
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.352mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.744	1.483mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:01:19 PM
2	2.910	1.166mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:04:38 PM
3	3.423	1.361mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:07:59 PM
4	3.517	1.397mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:11:34 PM

Mean Area 3.399
Mean Conc. 1.352mg/L



Sample

Sample Name: 280-182431-i-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

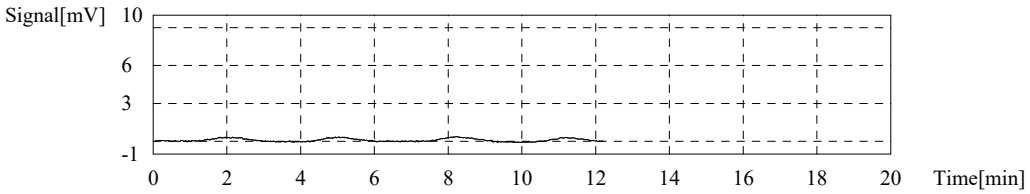
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8044mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.790	0.7392mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:20:30 PM
2	2.094	0.8550mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:24:04 PM
3	2.106	0.8596mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:27:14 PM
4	1.855	0.7640mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:30:26 PM

Mean Area 1.961
Mean Conc. 0.8044mg/L



Sample

Sample Name: 280-182431-i-3
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

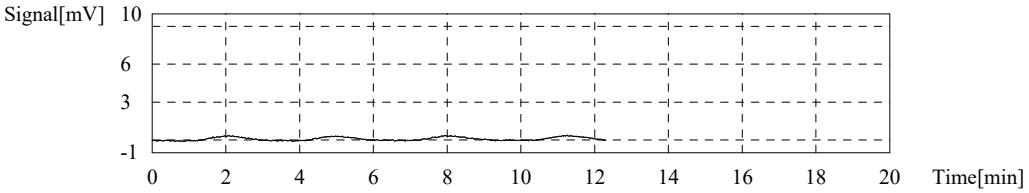
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9207mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.974	0.8093mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:39:19 PM
2	2.081	0.8500mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:42:33 PM
3	2.387	0.9666mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:45:57 PM
4	2.624	1.057mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:49:15 PM

Mean Area 2.267
Mean Conc. 0.9207mg/L



Sample

Sample Name: 280-182706-c-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

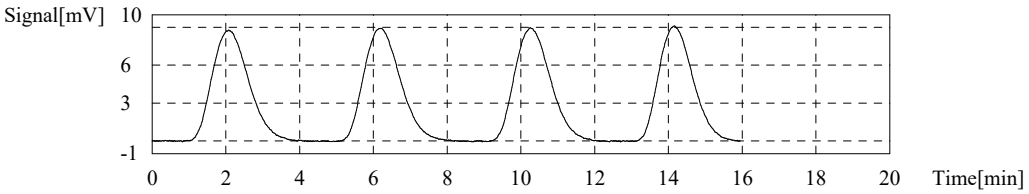
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:46.79mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	61.25	46.76mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 4:59:21 PM
2	62.61	47.80mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:03:41 PM
3	61.59	47.02mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:07:48 PM
4	59.69	45.58mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:11:48 PM

Mean Area 61.29
Mean Conc. 46.79mg/L



Sample

Sample Name: 280-182535-c-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

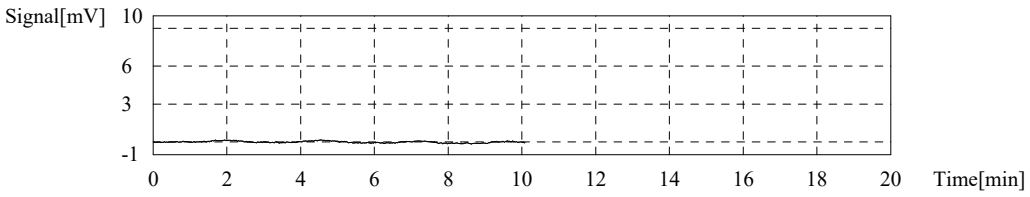
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2648mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4423	0.2260mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:20:18 PM
2	0.7725	0.3518mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:23:12 PM
3	0.4423	0.2260mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:25:46 PM
4	0.5192	0.2553mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:28:24 PM

Mean Area 0.5441
Mean Conc. 0.2648mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

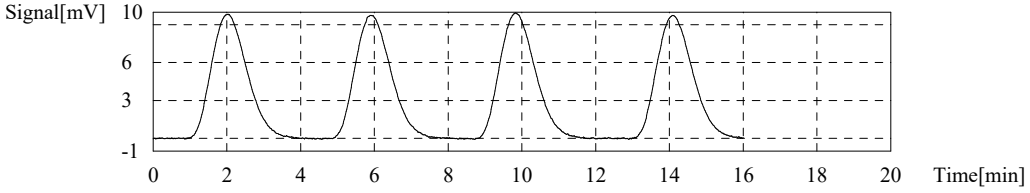
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.55mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.86	25.52mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:38:15 PM
2	66.14	25.24mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:42:28 PM
3	67.91	25.92mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:46:54 PM
4	66.87	25.52mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:51:06 PM

Mean Area 66.94
Mean Conc. 25.55mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

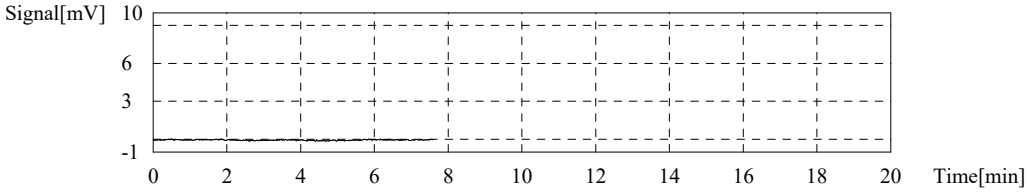
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06932mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.06170	0.08107mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 5:58:58 PM
2	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:01:07 PM
3	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:03:12 PM
4	0.06170	0.08107mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:05:21 PM

Mean Area 0.03085
Mean Conc. 0.06932mg/L



Sample

Sample Name: 280-182535-c-3
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

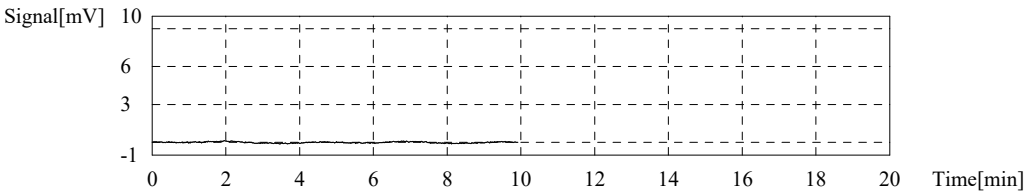
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2109mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6485	0.3045mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:13:58 PM
2	0.2819	0.1649mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:16:23 PM
3	0.4860	0.2426mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:19:13 PM
4	0.1945	0.1316mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:21:50 PM

Mean Area 0.4027
Mean Conc. 0.2109mg/L



Sample

Sample Name: 280-182476-a-3
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

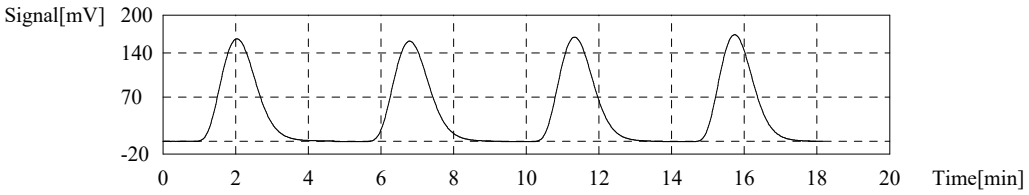
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	25.00	NPOC:10719mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1130	10759mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:32:30 PM
2	1117	10636mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:37:21 PM
3	1129	10750mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:42:07 PM
4	1127	10731mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:46:53 PM

Mean Area 1126
Mean Conc. 10719mg/L



Sample

Sample Name: lcs 280-629718/1-a
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

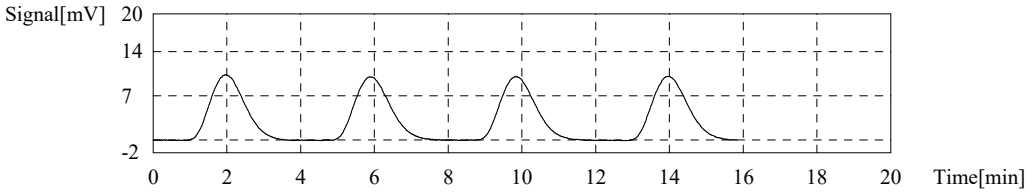
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.26mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	69.45	26.50mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 6:56:44 PM
2	68.31	26.07mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:00:56 PM
3	68.60	26.18mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:05:14 PM
4	68.89	26.29mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:09:18 PM

Mean Area 68.81
Mean Conc. 26.26mg/L



Sample

Sample Name: mb 280-629718/2-a
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

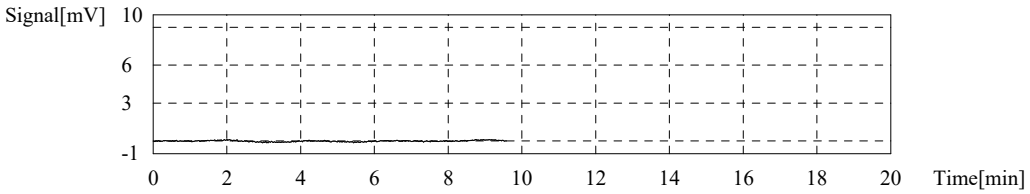
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1828mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1816	0.1267mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:17:34 PM
2	0.1087	0.09897mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:20:00 PM
3	0.2504	0.1529mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:22:34 PM
4	0.7746	0.3526mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:25:30 PM

Mean Area 0.3288
Mean Conc. 0.1828mg/L



Sample

Sample Name: 560-113267-a-1-d
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

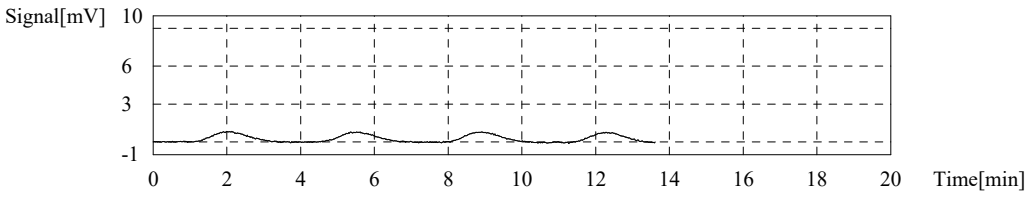
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:10.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.616	10.98mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:34:55 PM
2	5.067	9.936mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:38:30 PM
3	5.296	10.37mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:42:11 PM
4	5.449	10.66mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:45:44 PM

Mean Area 5.357
Mean Conc. 10.49mg/L



Sample

Sample Name: 560-113267-a-1-e ms
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

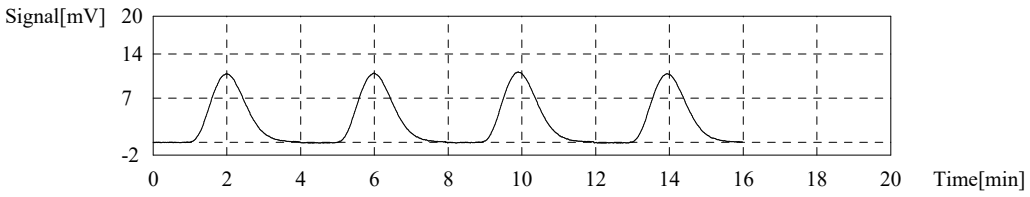
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:140.3mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	72.77	138.8mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:55:41 PM
2	73.58	140.4mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 7:59:49 PM
3	74.32	141.8mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:04:07 PM
4	73.52	140.3mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:08:24 PM

Mean Area 73.55
Mean Conc. 140.3mg/L



Sample

Sample Name: 560-113267-a-1-f msd
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

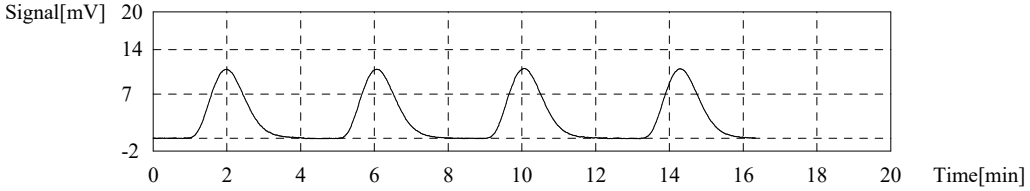
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:141.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	73.72	140.7mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:18:27 PM
2	73.94	141.1mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:22:42 PM
3	73.84	140.9mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:27:07 PM
4	74.02	141.2mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:31:20 PM

Mean Area 73.88
Mean Conc. 141.0mg/L



Sample

Sample Name: 560-113267-a-2-b
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

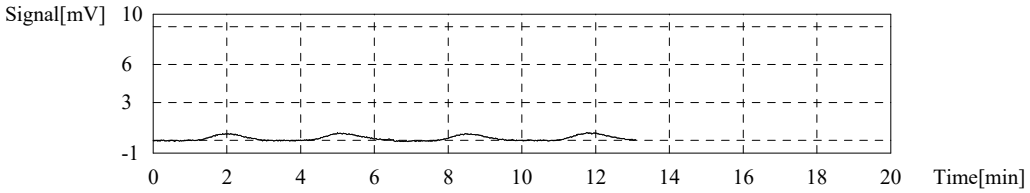
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:7.231mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.511	6.973mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:40:25 PM
2	3.812	7.546mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:44:00 PM
3	3.337	6.642mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:47:33 PM
4	3.926	7.763mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 8:51:02 PM

Mean Area 3.647
Mean Conc. 7.231mg/L



Sample

Sample Name: 280-182463-e-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

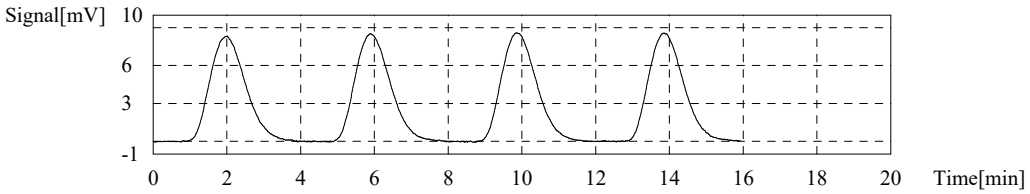
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	25.00	NPOC:546.1mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.79	542.1mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:00:54 PM
2	57.32	547.1mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:05:09 PM
3	57.60	549.8mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:09:33 PM
4	57.14	545.4mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:13:46 PM

Mean Area 57.21
Mean Conc. 546.1mg/L



Sample

Sample Name: 280-182463-d-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

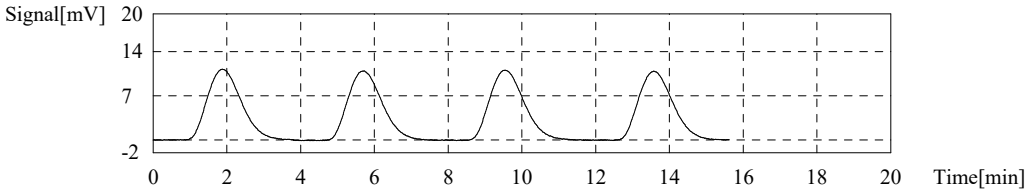
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	25.00	NPOC:688.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	72.15	688.3mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:23:33 PM
2	71.98	686.7mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:27:36 PM
3	73.09	697.3mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:31:49 PM
4	71.32	680.4mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:35:57 PM

Mean Area 72.14
Mean Conc. 688.2mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

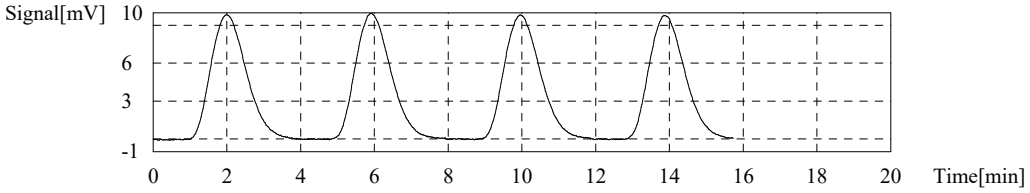
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.46mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.75	25.48mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:45:49 PM
2	66.72	25.47mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:50:03 PM
3	66.67	25.45mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:54:13 PM
4	66.66	25.44mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 9:58:21 PM

Mean Area 66.70
Mean Conc. 25.46mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

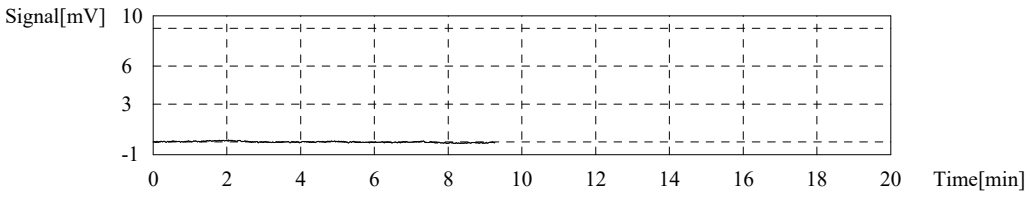
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1549mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9946	0.4363mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:07:09 PM
2	0.00900	0.06100mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:09:59 PM
3	0.01830	0.06454mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:12:04 PM
4	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:14:13 PM

Mean Area 0.2555
Mean Conc. 0.1549mg/L



Sample

Sample Name: 280-182463-e-3
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

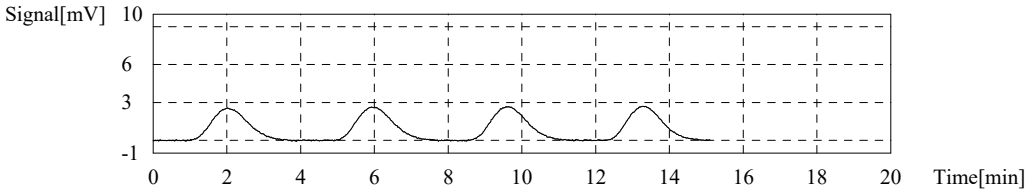
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:138.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.06	138.7mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:24:06 PM
2	17.90	137.5mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:27:57 PM
3	18.34	140.8mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:31:51 PM
4	17.92	137.6mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:35:51 PM

Mean Area 18.06
Mean Conc. 138.7mg/L



Sample

Sample Name: 280-182463-d-4
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

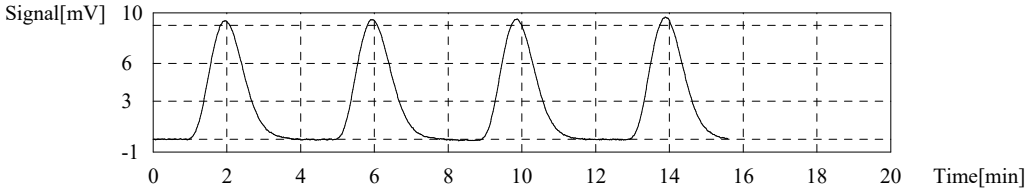
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.000	NPOC:47.72mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	62.15	47.45mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:45:48 PM
2	62.56	47.76mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:49:53 PM
3	62.48	47.70mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:54:08 PM
4	62.82	47.96mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 10:57:57 PM

Mean Area 62.50
Mean Conc. 47.72mg/L



Sample

Sample Name: 280-182463-e-5
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

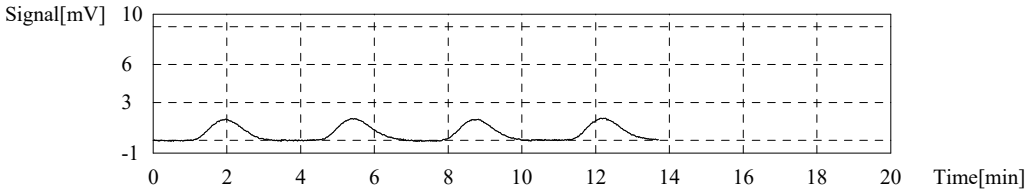
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	20.00	NPOC:83.54mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.95	84.55mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:07:23 PM
2	10.53	81.35mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:10:53 PM
3	11.06	85.39mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:14:36 PM
4	10.73	82.87mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:18:13 PM

Mean Area 10.82
Mean Conc. 83.54mg/L



Sample

Sample Name: 280-182443-c-8
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

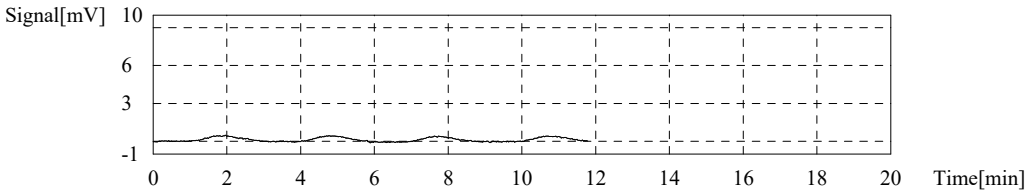
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.042mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.777	1.115mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:27:05 PM
2	2.425	0.9810mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:30:11 PM
3	2.769	1.112mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:33:24 PM
4	2.365	0.9582mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:36:31 PM

Mean Area 2.584
Mean Conc. 1.042mg/L



Sample

Sample Name: 280-182631-a-4
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

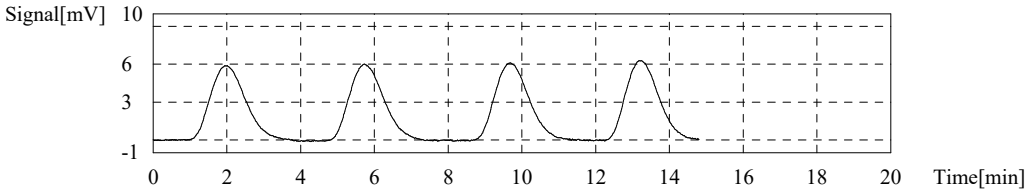
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:151.5mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.05	149.3mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:46:16 PM
2	40.82	156.0mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:50:29 PM
3	39.18	149.8mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:54:14 PM
4	39.48	150.9mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/14/2023 11:57:55 PM

Mean Area 39.63
Mean Conc. 151.5mg/L



Sample

Sample Name: 280-182533-c-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

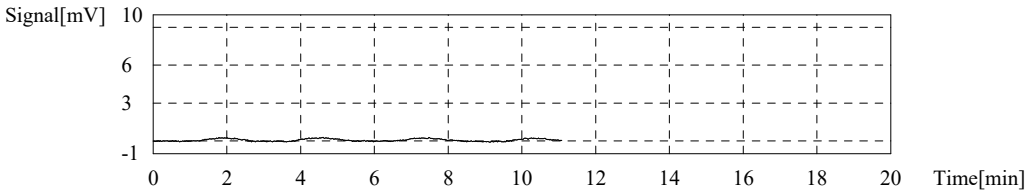
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5711mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8739	0.3904mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:06:28 AM
2	1.692	0.7019mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:09:34 AM
3	1.497	0.6276mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:12:48 AM
4	1.331	0.5644mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:15:43 AM

Mean Area 1.348
Mean Conc. 0.5711mg/L



Sample

Sample Name: 280-182463-e-6
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

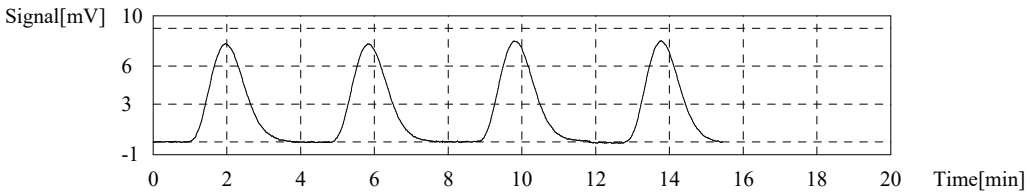
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:100.4mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.49	100.2mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:25:31 AM
2	51.93	99.17mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:29:46 AM
3	53.21	101.6mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:33:57 AM
4	52.68	100.6mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:37:50 AM

Mean Area 52.58
Mean Conc. 100.4mg/L



Sample

Sample Name: MS 280-182463-e-6
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

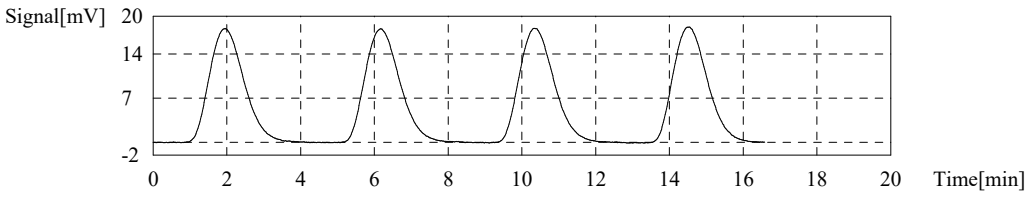
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:227.7mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	119.7	228.2mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:48:00 AM
2	119.2	227.3mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:52:22 AM
3	119.1	227.1mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 12:56:51 AM
4	119.8	228.4mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 1:01:02 AM

Mean Area 119.5
Mean Conc. 227.7mg/L



Sample

Sample Name: MSD 280-182463-e-6
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

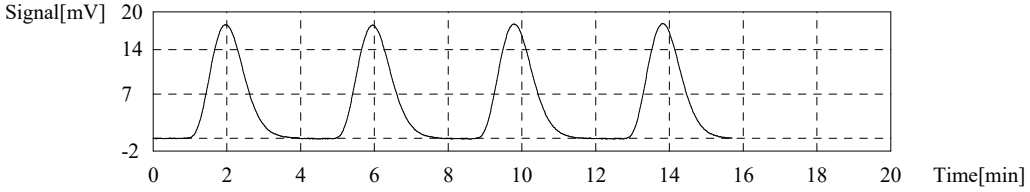
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	5.000	NPOC:226.0mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	118.1	225.2mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 1:10:58 AM
2	118.5	225.9mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 1:15:04 AM
3	119.3	227.4mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 1:19:22 AM
4	118.3	225.5mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 1:23:23 AM

Mean Area 118.6
Mean Conc. 226.0mg/L



Sample

Sample Name: 280-182476-a-1
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

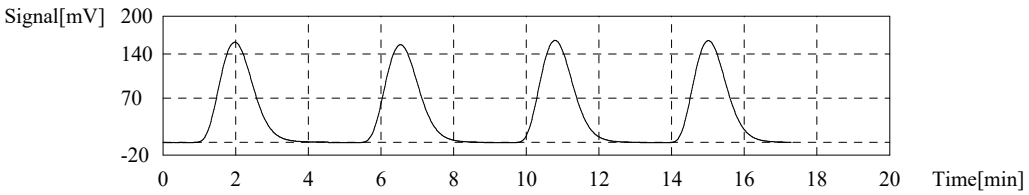
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	25.00	NPOC:9922mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1049	9988mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 1:33:55 AM
2	1022	9731mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 1:38:28 AM
3	1052	10017mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 1:43:01 AM
4	1045	9950mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 1:47:33 AM

Mean Area 1042
Mean Conc. 9922mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

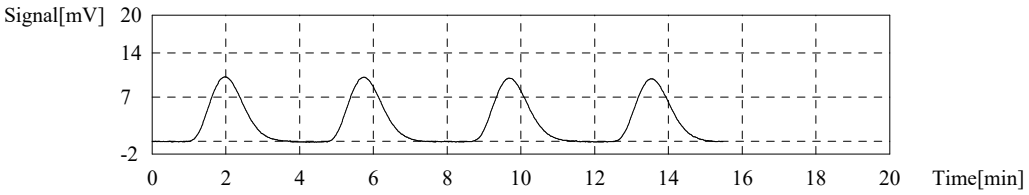
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.83	25.51mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 1:57:20 AM
2	68.28	26.06mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:01:27 AM
3	66.75	25.48mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:05:28 AM
4	67.05	25.59mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:09:37 AM

Mean Area 67.23
Mean Conc. 25.66mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

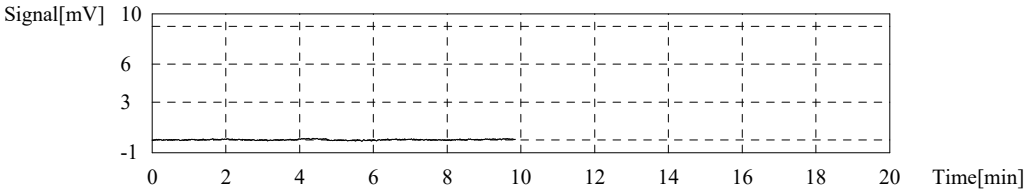
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1846mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4144	0.2154mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:18:03 AM
2	0.2173	0.1403mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:20:32 AM
3	0.4090	0.2133mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:23:18 AM
4	0.2940	0.1695mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:26:04 AM

Mean Area 0.3337
Mean Conc. 0.1846mg/L



Sample

Sample Name: 280-182476-a-2
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

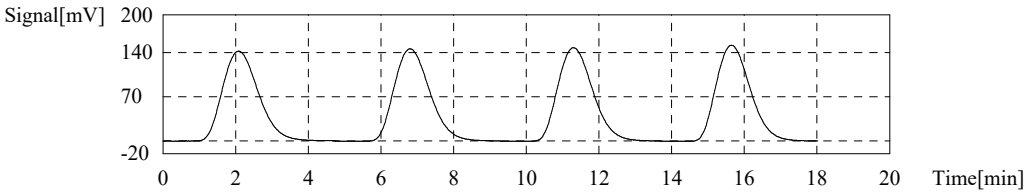
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	25.00	NPOC:9527mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	987.3	9401mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:36:48 AM
2	1006	9579mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:41:35 AM
3	1002	9541mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:46:14 AM
4	1007	9588mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:50:52 AM

Mean Area 1001
Mean Conc. 9527mg/L



Sample

Sample Name: 280-182535-b-4
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

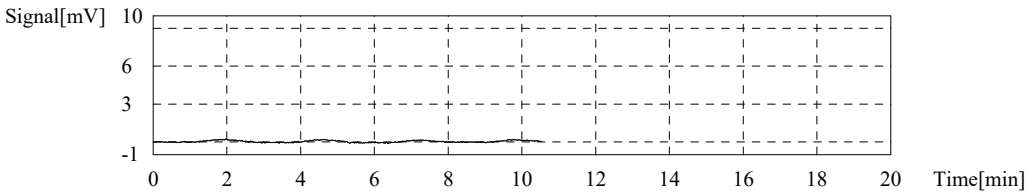
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3926mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.091	0.4730mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 2:59:28 AM
2	0.9692	0.4267mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:02:18 AM
3	0.9590	0.4228mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:05:12 AM
4	0.5003	0.2481mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:07:57 AM

Mean Area 0.8799
Mean Conc. 0.3926mg/L



Sample

Sample Name: 280-182535-b-5
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

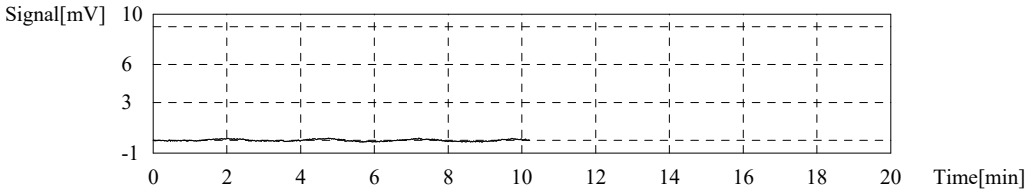
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2942mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5756	0.2768mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:16:31 AM
2	0.5116	0.2524mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:19:24 AM
3	0.7447	0.3412mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:22:12 AM
4	0.6539	0.3066mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:24:47 AM

Mean Area 0.6215
Mean Conc. 0.2942mg/L



Sample

Sample Name: CCV
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

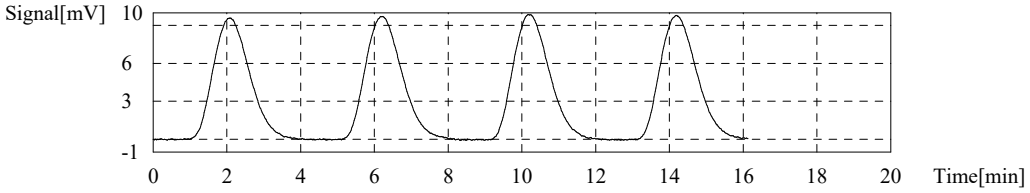
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.77mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.51	25.39mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:34:55 AM
2	67.27	25.67mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:39:07 AM
3	68.46	26.13mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:43:17 AM
4	67.87	25.90mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:47:27 AM

Mean Area 67.53
Mean Conc. 25.77mg/L



Sample

Sample Name: CCB
Sample ID:
Origin: NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal
Status Completed
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.07969mg/L

1. Det

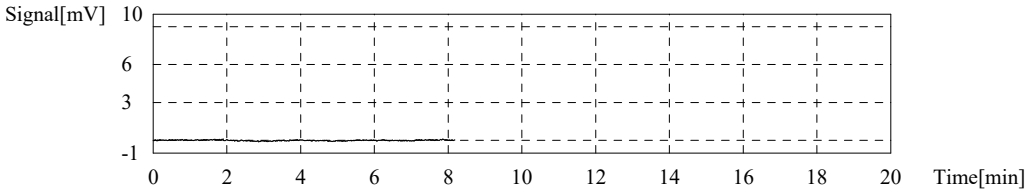
Anal.: NPOC

TOC-Control L Report

ABW
2023_10_13_001.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.000	0.05757mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:55:20 AM
2	0.09040	0.09200mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:57:29 AM
3	0.02330	0.06645mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 3:59:34 AM
4	0.1186	0.1027mg/L	50uL	1.000		NPOC_Calibration_10_31_2022.2023_08_30_17_37_36.cal	10/15/2023 4:02:14 AM

Mean Area 0.05808
Mean Conc. 0.07969mg/L



Shi 7 TOC.

9060

	Analysis	Sample Name	Result	Notes	Vial
1*	NPOC	ICV	PH<2		1
2*	NPOC	ICB	✓		2
3*	NPOC	LCS	✓		3
4*	NPOC	MB	✓		4
5*	NPOC	TIC	✓		5
6*	NPOC	280-182465-a-8	✓		6
7*	NPOC	MS 280-182465-a-8	✓		7
8*	NPOC	MSD 280-182465-a-8	✓		8
9*	NPOC	280-182465-a-1	✓		9
10*	NPOC	280-182465-a-2	✓	10x odor	10
11*	NPOC	280-182465-a-4	✓		11
12*	NPOC	280-182465-a-5	✓		12
13*	NPOC	280-182465-a-6	✓		13
14*	NPOC	280-182465-a-7	✓		14
15*	NPOC	CCV	✓		15
16*	NPOC	CCB	✓		16
17*	NPOC	280-182234-d-1	✓		17
18*	NPOC	280-182234-d-2	✓		18
19*	NPOC	280-182320-d-1	✓		19
20*	NPOC	280-182355-e-1	✓	20x odor	20
21*	NPOC	MS 280-182355-e-1	✓	20x	21
22*	NPOC	MSD 280-182355-e-1	✓	20x	22
23*	NPOC	280-182355-e-2	✓	10x odor & color	23
24*	NPOC	280-182355-e-3	✓	10x odor	24
25*	NPOC	280-182355-e-4	✓	10x	25
26*	NPOC	280-182355-e-5	✓	10x	26
27*	NPOC	CCV	✓		27
28*	NPOC	CCB	✓		28
29*	NPOC	280-182320-d-2	✓		29
30*	NPOC	280-182320-d-3	✓		30
31*	NPOC	280-182443-c-2	✓		31
32*	NPOC	280-182443-c-4	✓		32
33*	NPOC	280-182443-c-7	✓		33
34*	NPOC	LCS	✓		34
35*	NPOC	MB	✓		35
36*	NPOC	TIC	✓		36
37*	NPOC	280-182341-c-1	✓		37
38*	NPOC	MS 280-182341-c-1	✓		38
39*	NPOC	CCV	✓		39
40*	NPOC	CCB	✓		40
41*	NPOC	MSD 280-182341-c-1	✓		41
42*	NPOC	280-182341-d-2	✓		42
43*	NPOC	280-182341-d-3	✓		43
44*	NPOC	280-182341-c-4	✓		44
45*	NPOC	280-182711-c-1	✓		45
46*	NPOC	280-182711-c-2	✓		46
47*	NPOC	280-182711-c-3	✓		47
48*	NPOC	280-182711-c-4	✓		48
49*	NPOC	280-182711-c-5	✓		49
50*	NPOC	280-182243-r-1	✓	10x odor	50
51*	NPOC	CCV	✓		51
52*	NPOC	CCB	✓		52
53*	NPOC	280-182532-n-1	✓	20x odor	53

5310

Shi7 TOC & DOC

	Analysis	Sample Name	Result (PH<2)	Notes	Vial
54*	NPOC	MS 280-182532-n-1	–	20x	54
55*	NPOC	MSD 280-182532-n-1	–	20x	55
56*	NPOC	840-2935-d-1	–		56
57*	NPOC	840-2935-d-2	–		57
58*	NPOC	280-182431-c-1	–		58
59*	NPOC	280-182431-i-2	–		59
60*	NPOC	280-182431-i-3	–		60
61*	NPOC	280-182706-c-1	✓	2x Turbidity	61
62*	NPOC	280-182535-c-2	–		62
63*	NPOC	CCV	–		63
64*	NPOC	CCB	–		64
65*	NPOC	280-182535-c-3	–		65
66*	NPOC	280-182476-a-3	✓	25x color	66
67*	NPOC	lcs 280-629718/1-a	–		67
68*	NPOC	mb 280-629718/2-a	–	Filtration DOC	68
69*	NPOC	560-113267-a-1-d	>2	5x	69
70*	NPOC	560-113267-a-1-e ms	>2	5x	70
71*	NPOC	560-113267-a-1-f msd	>2	5x	71
72*	NPOC	560-113267-a-2-b	>2	5x	72
73*	NPOC	280-182463-e-1	✓	25x color	73
74*	NPOC	280-182463-d-2	✓	25x ↓	74
75*	NPOC	CCV	–		75
76*	NPOC	CCB	–		76
77*	NPOC	280-182463-e-3	–	~~25x~~ color & 20x odor	77
78*	NPOC	280-182463-d-4	–	~~25x~~ ↓ 2x ↓	78
79*	NPOC	280-182463-e-5	–	~~25x~~ ↓ 20x ↓	79
80*	NPOC	280-182443-c-8	–		80
81*	NPOC	280-182631-a-4	–	10x RR	81
82*	NPOC	280-182533-c-1	–		82
83*	NPOC	280-182463-e-6	–	5x odor	83
84*	NPOC	MS 280-182463-e-6	–	5x ↓	84
85*	NPOC	MSD 280-182463-e-6	–	5x	85
86*	NPOC	280-182476-a-1	✓	25x	86
87*	NPOC	CCV	–		87
88*	NPOC	CCB	–		88
89*	NPOC	280-182476-a-2	✓	25x	89
90*	NPOC	280-182535-b-4	✓		90
91*	NPOC	280-182535-b-5	–		91
92*	NPOC	CCV	–		92
93*	NPOC	CCB	–		93

9060.

BWH 5000, 1000 MS

General Chemistry Raw Data Report

Job ID: 280-182443-1

Batch: 629388 **Analyst Initials: CAI**

Method: EPA 9034 **Instrument: No Equipment Used for this Test**

Lab Sample ID: LCS 280-629386/1-A

Analysis Date: Oct 11, 2023 14:56

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	17.6	mg/L	50 mL	50 mL

Lab Sample ID: MB 280-629386/2-A

Analysis Date: Oct 11, 2023 14:56

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-182443-D-2-A

Analysis Date: Oct 11, 2023 14:56

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-182443-D-2-B MS

Analysis Date: Oct 11, 2023 14:56

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	17.6	mg/L	50 mL	50 mL

Lab Sample ID: 280-182443-D-2-C MSD

Analysis Date: Oct 11, 2023 14:56

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	16.8	mg/L	50 mL	50 mL

Lab Sample ID: 280-182443-D-4-A

Analysis Date: Oct 11, 2023 14:56

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-182443-D-7-A

Analysis Date: Oct 11, 2023 14:56

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Lab Sample ID: 280-182443-D-8-A

Analysis Date: Oct 11, 2023 14:56

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Sulfide	None	1	0	mg/L	50 mL	50 mL

Sulfide by Titration

Analyst:	CAI	SOP Information:	
Date:	10/11/2023	Number:	91
Titration Solutions		**Calibration Information**	
Solution 1:	Iodine	Source/Ver-Lot#:	INT_02477
TALS ID	Iod_00279	Prep Date:	9/26/2023
Normality:	0.1	Made By:	SLR
Solution 2:	sodium thiosulfate	Concentration:	1032
TALS ID	Na Thio_00185	Expiration Date:	12/26/2023
Normality:	0.025		
	Starch Indicator		
TALS ID	Starch IND_00072		

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
CAL	5	0.00	7.00	5	7.00	1040.000
CAL	5	7.00	14.20	5	7.20	1024.000

Calibrated only CAL 10/11 ~CAI

ICV Information	
Source/Ver-Lot#:	INT_02355
Prep Date:	9/26/2023
Made By:	SLR
Concentration:	924
Expiration Date:	12/26/2023

	CAL Volume	Buret Start	Buret End	mL Iodine	Final mL	Conc mg/L
ICV	5	0.00	8.40	5	8.40	928.000
ICV	5	8.40	16.90	5	8.50	920.000

TALS Raw Data Report

Job Number: 280-182443-1
LIMS Batch: 629388
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-629386/1-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		17.6 mg/L	mg/L	85	44 110		
Sulfide as H2S		18.7 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-629386/2-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 3 Lab ID: **280-182443-D-2-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 4 Lab ID: **280-182443-D-2-B MS** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		17.6 mg/L	mg/L	85	44 110		
Sulfide as H2S		18.7 mg/L	mg/L				

RS# 5 Lab ID: **280-182443-D-2-C MSD** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16.8 mg/L	mg/L	81	44 110	5	20
Sulfide as H2S		17.85 mg/L	mg/L				

RS# 6 Lab ID: **280-182443-D-4-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 7 Lab ID: **280-182443-D-7-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 8 Lab ID: **280-182443-D-8-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

TALS Raw Data Report

Job Number: 280-182533-1
LIMS Batch: 629388
Equipment: NOEQUIP

Laboratory: Eurofins Denver

RS# 1 Lab ID: **LCS 280-629386/1-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		17.6 mg/L	mg/L	85	44 110		
Sulfide as H2S		18.7 mg/L	mg/L				

RS# 2 Lab ID: **MB 280-629386/2-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 3 Lab ID: **280-182443-D-2-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 4 Lab ID: **280-182443-D-2-B MS** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		17.6 mg/L	mg/L	85	44 110		
Sulfide as H2S		18.7 mg/L	mg/L				

RS# 5 Lab ID: **280-182443-D-2-C MSD** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		16.8 mg/L	mg/L	81	44 110	5	20
Sulfide as H2S		17.85 mg/L	mg/L				

RS# 9 Lab ID: **280-182533-D-1-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

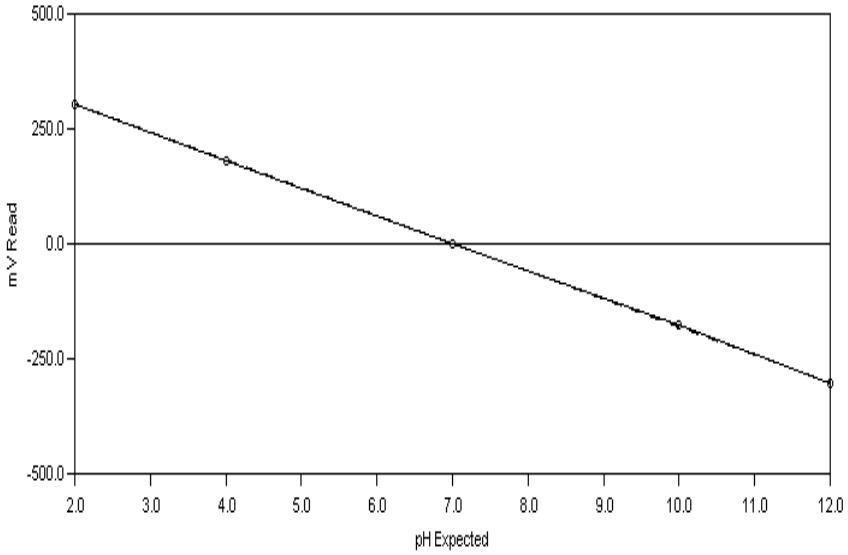
Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

RS# 10 Lab ID: **280-182533-A-2-A** Inj Date: 10/11/2023 2:56:00PM Dil: 1.0 Meth: 9034_Calc

Analyte	Rspnse	Raw Res/Units	Final Res/Qual/Units	% Rec	Rec Lmt	% RPD	RPD Lmt
Sulfide		0 mg/L	2.0 U mg/L				
Sulfide as H2S		0 mg/L	2.1 U mg/L				

Calibration Report

Calibration Record # 712



Calibration Settings

Calibration ID	PH	Date	10/9/2023	
Channel	1	Time	4:36 PM	
Probe Type	pH	Temperature	295.52 K	22.37 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit	

Calibration Results

Slope	-60.325	CorrCoeff	1.0000
Intercept	0.072	Equation:	Y = (-60.325) X + (0.072)

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-60.325	-65.00	-53.00
Intercept	0.072	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	2.00	301.26
	4.00	181.39
	7.00	-0.73
	10.00	-178.10
	12.00	-303.46

Test America

AT4 Analyst:_____

Water Analysis Report

Run Number 2054 **Order Number** 20231009-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
RINSE	10/9/2023	11:54 PM	20.96	-1.00	5.32	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
INITIAL CHECK	10/10/2023	12:00 AM	20.63	-1.00	10.66	174.69	199.49	.00	49.61	149.88	1.75	1.99	-1.00	.02
BUFFER 7	10/10/2023	12:03 AM	20.34	-1.00	7.02	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
LCS	10/10/2023	12:10 AM	20.43	-1.00	10.70	183.71	208.78	.00	50.13	158.65	1.84	2.09	-1.00	.02
MB	10/10/2023	12:16 AM	20.47	-1.00	8.35	.00	3.61	3.61	.00	.00	.00	.04	.05	.02
280-182431-a-1	10/10/2023	12:23 AM	20.51	-1.00	6.63	.00	269.04	269.04	.00	.00	.00	2.69	-1.00	.02
DU280-182431-a-1	10/10/2023	12:30 AM	20.45	-1.00	6.76	.00	271.13	271.13	.00	.00	.00	2.71	-1.00	.02
280-182243-o-1	10/10/2023	12:48 AM	20.41	-1.00	7.33	.00	1,678.13	1,678.13	.00	.00	.00	16.78	-1.00	.02
280-182335-a-9	10/10/2023	12:56 AM	20.59	-1.00	6.97	.00	273.21	273.21	.00	.00	.00	2.73	-1.00	.02
280-182355-c-1	10/10/2023	1:10 AM	20.51	-1.00	7.11	.00	1,291.29	1,291.29	.00	.00	.00	12.91	-1.00	.02
280-182355-c-2	10/10/2023	1:21 AM	20.67	-1.00	7.45	.00	703.21	703.21	.00	.00	.00	7.03	-1.00	.02
280-182355-c-3	10/10/2023	1:33 AM	20.36	-1.00	6.90	.00	934.06	934.06	.00	.00	.00	9.34	-1.00	.02
280-182405-c-2	10/10/2023	1:39 AM	20.25	-1.00	6.75	.00	2.57	2.57	.00	.00	.00	.04	.05	.02
280-182443-e-2	10/10/2023	1:47 AM	20.00	-1.00	6.84	.00	336.97	336.97	.00	.00	.00	3.37	-1.00	.02
280-182443-e-4	10/10/2023	1:54 AM	19.87	-1.00	7.07	.00	276.58	276.58	.00	.00	.00	2.77	-1.00	.02
CCV	10/10/2023	2:01 AM	19.94	-1.00	10.62	177.71	200.45	.00	45.47	154.97	1.78	2.00	-1.00	.02
CCB	10/10/2023	2:07 AM	19.98	-1.00	8.40	.19	3.73	3.34	.39	.00	.00	.05	.05	.02
280-182443-e-7	10/10/2023	2:12 AM	20.07	-1.00	6.11	.00	50.02	50.02	.00	.00	.00	.50	-1.00	.02
280-182443-e-8	10/10/2023	2:17 AM	20.09	-1.00	5.89	.00	1.16	1.16	.00	.00	.00	.03	.04	.02
280-182501-a-1	10/10/2023	2:24 AM	20.36	-1.00	6.70	.00	190.27	190.27	.00	.00	.00	1.90	-1.00	.02
280-182501-a-2	10/10/2023	2:30 AM	20.54	-1.00	6.84	.00	190.04	190.04	.00	.00	.00	1.90	-1.00	.02
280-182501-a-3	10/10/2023	2:36 AM	20.48	-1.00	6.82	.00	189.87	189.87	.00	.00	.00	1.90	-1.00	.02
280-182504-i-1	10/10/2023	2:43 AM	20.41	-1.00	7.16	.00	205.53	205.53	.00	.00	.00	2.06	-1.00	.02
280-182505-i-1	10/10/2023	2:53 AM	20.38	-1.00	7.44	.00	670.89	670.89	.00	.00	.00	6.71	-1.00	.02
280-182530-f-1	10/10/2023	3:04 AM	20.49	-1.00	8.54	47.19	814.48	720.10	94.38	.00	.47	8.14	-1.00	.02
280-182532-k-1	10/10/2023	3:20 AM	20.55	-1.00	7.42	.00	1,416.20	1,416.20	.00	.00	.00	14.16	-1.00	.02
280-182533-e-1	10/10/2023	3:26 AM	20.70	-1.00	6.44	.00	22.85	22.85	.00	.00	.00	.23	-1.00	.02

PC-TitratION PLUS by Man-Tech Associates, Inc.

Copyright Hinterland Software Ltd.

Run Number 2054 **Order Number** 20231009-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
CCV	10/10/2023	3:33 AM	20.62	-1.00	10.58	176.14	200.57	.00	48.87	151.70	1.76	2.01	-1.00	.02
CCB	10/10/2023	3:39 AM	20.84	-1.00	8.36	.09	3.68	3.49	.18	.00	.00	.04	.05	.02
LCS	10/10/2023	3:45 AM	21.14	-1.00	10.58	178.83	203.23	.00	48.80	154.43	1.79	2.03	-1.00	.02
MB	10/10/2023	3:51 AM	21.27	-1.00	8.38	.21	3.80	3.38	.42	.00	.00	.05	.05	.02
280-182533-b-2	10/10/2023	3:56 AM	21.01	-1.00	5.90	.00	21.12	21.12	.00	.00	.00	.21	-1.00	.02
DU 280-182533-b-2	10/10/2023	4:01 AM	20.88	-1.00	5.92	.00	21.43	21.43	.00	.00	.00	.21	-1.00	.02
280-182535-a-2	10/10/2023	4:07 AM	20.83	-1.00	6.65	.00	114.43	114.43	.00	.00	.00	1.14	-1.00	.02
280-182535-a-3	10/10/2023	4:13 AM	20.74	-1.00	6.60	.00	120.37	120.37	.00	.00	.00	1.20	-1.00	.02
280-182535-a-4	10/10/2023	4:18 AM	20.81	-1.00	5.97	.00	.91	.91	.00	.00	.00	.03	.04	.02
280-182535-a-5	10/10/2023	4:24 AM	20.77	-1.00	6.47	.00	99.33	99.33	.00	.00	.00	.99	-1.00	.02
280-182538-b-1	10/10/2023	4:30 AM	20.78	-1.00	7.42	.00	187.77	187.77	.00	.00	.00	1.88	-1.00	.02
280-182538-a-2	10/10/2023	4:37 AM	20.92	-1.00	7.18	.00	216.24	216.24	.00	.00	.00	2.16	-1.00	.02
280-182538-a-3	10/10/2023	4:43 AM	21.19	-1.00	7.03	.00	173.38	173.38	.00	.00	.00	1.73	-1.00	.02
280-182538-b-4	10/10/2023	4:50 AM	21.44	-1.00	7.23	.00	207.47	207.47	.00	.00	.00	2.07	-1.00	.02
CCV	10/10/2023	4:57 AM	21.22	-1.00	10.49	185.40	210.51	.00	50.23	160.28	1.85	2.11	-1.00	.02
CCB	10/10/2023	5:02 AM	21.05	-1.00	8.43	.35	3.48	2.79	.70	.00	.00	.04	.05	.02
280-182571-c-1	10/10/2023	5:09 AM	20.91	-1.00	7.06	.00	232.76	232.76	.00	.00	.00	2.33	-1.00	.02
280-182573-c-1	10/10/2023	5:16 AM	20.89	-1.00	7.55	.00	225.23	225.23	.00	.00	.00	2.25	-1.00	.02
280-182573-c-2	10/10/2023	5:22 AM	20.98	-1.00	6.74	.00	172.11	172.11	.00	.00	.00	1.72	-1.00	.02
280-182553-a-1	10/10/2023	5:29 AM	20.96	-1.00	6.95	.00	285.39	285.39	.00	.00	.00	2.85	-1.00	.02
280-182553-a-2	10/10/2023	5:37 AM	21.05	-1.00	7.00	.00	303.04	303.04	.00	.00	.00	3.03	-1.00	.02
280-182553-a-3	10/10/2023	5:44 AM	21.16	-1.00	7.00	.00	287.93	287.93	.00	.00	.00	2.88	-1.00	.02
280-182553-a-4	10/10/2023	5:51 AM	21.25	-1.00	7.11	.00	288.46	288.46	.00	.00	.00	2.88	-1.00	.02
280-182553-a-5	10/10/2023	5:58 AM	21.57	-1.00	7.30	.00	285.37	285.37	.00	.00	.00	2.85	-1.00	.02
280-182553-a-6	10/10/2023	6:06 AM	21.61	-1.00	7.20	.00	311.05	311.05	.00	.00	.00	3.11	-1.00	.02
280-182553-a-7	10/10/2023	6:13 AM	21.43	-1.00	7.09	.00	294.77	294.77	.00	.00	.00	2.95	-1.00	.02
CCV	10/10/2023	6:19 AM	21.19	-1.00	10.52	177.78	202.32	.00	49.08	153.24	1.78	2.02	-1.00	.02
CCB	10/10/2023	6:25 AM	21.09	-1.00	8.43	.00	4.01	4.01	.00	.00	.00	.05	.05	.02
LCS	10/10/2023	6:32 AM	20.95	-1.00	10.49	176.64	201.95	.00	50.61	151.34	1.77	2.02	-1.00	.02
MB	10/10/2023	6:38 AM	20.96	-1.00	8.45	.33	4.29	3.63	.65	.00	.00	.05	.06	.02

Copyright Hinterland Software Ltd.

Run Number 2054 **Order Number** 20231009-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-182553-a-8	10/10/2023	6:45 AM	20.95	-1.00	6.91	.00	329.62	329.62	.00	.00	.00	3.30	-1.00	.02
DU 280-182553-a-8	10/10/2023	6:53 AM	21.01	-1.00	6.89	.00	338.03	338.03	.00	.00	.00	3.38	-1.00	.02
280-182553-a-9	10/10/2023	7:00 AM	21.15	-1.00	7.12	.00	306.02	306.02	.00	.00	.00	3.06	-1.00	.02
280-182553-a-10	10/10/2023	7:06 AM	21.28	-1.00	6.37	.00	2.93	2.93	.00	.00	.00	.04	.05	.02
280-182551-i-2	10/10/2023	7:14 AM	21.47	-1.00	7.29	.00	441.50	441.50	.00	.00	.00	4.41	-1.00	.02
280-182551-j-4	10/10/2023	7:21 AM	21.83	-1.00	7.03	.00	256.68	256.68	.00	.00	.00	2.57	-1.00	.02
280-182551-i-6	10/10/2023	7:30 AM	21.48	-1.00	7.21	.00	518.91	518.91	.00	.00	.00	5.19	-1.00	.02
280-182558-a-4	10/10/2023	7:35 AM	21.34	-1.00	6.65	.00	31.85	31.85	.00	.00	.00	.32	-1.00	.02
280-182544-e-2	10/10/2023	7:42 AM	21.24	-1.00	7.00	.00	321.80	321.80	.00	.00	.00	3.22	-1.00	.02
280-182544-e-3	10/10/2023	7:50 AM	21.16	-1.00	7.13	.00	376.34	376.34	.00	.00	.00	3.76	-1.00	.02
CCV	10/10/2023	7:57 AM	21.09	-1.00	10.50	183.51	207.53	.00	48.03	159.50	1.84	2.08	-1.00	.02
CCB	10/10/2023	8:03 AM	21.06	-1.00	8.36	.00	3.87	3.87	.00	.00	.00	.05	.05	.02
280-182544-e-4	10/10/2023	8:10 AM	21.01	-1.00	6.83	.00	359.32	359.32	.00	.00	.00	3.59	-1.00	.02
280-182544-e-5	10/10/2023	8:19 AM	21.14	-1.00	7.34	.00	466.63	466.63	.00	.00	.00	4.67	-1.00	.02
280-182544-e-6	10/10/2023	8:27 AM	21.31	-1.00	7.31	.00	436.61	436.61	.00	.00	.00	4.37	-1.00	.02
280-182544-e-7	10/10/2023	8:36 AM	21.54	-1.00	7.38	.00	417.02	417.02	.00	.00	.00	4.17	-1.00	.02
280-182544-e-8	10/10/2023	8:43 AM	21.79	-1.00	7.22	.00	314.03	314.03	.00	.00	.00	3.14	-1.00	.02
280-182544-e-9	10/10/2023	8:51 AM	21.90	-1.00	7.40	.00	355.37	355.37	.00	.00	.00	3.55	-1.00	.02
280-182544-e-10	10/10/2023	8:59 AM	21.64	-1.00	7.15	.00	398.85	398.85	.00	.00	.00	3.99	-1.00	.02
280-182544-e-11	10/10/2023	9:07 AM	21.51	-1.00	7.45	.00	373.99	373.99	.00	.00	.00	3.74	-1.00	.02
280-182541-c-1	10/10/2023	9:20 AM	21.31	-1.00	7.24	.00	977.68	977.68	.00	.00	.00	9.78	-1.00	.02
280-182541-h-2	10/10/2023	9:43 AM	21.27	-1.00	7.72	.00	.00	.00	.00	.00	.00	.00	.00	.02
CCV	10/10/2023	9:51 AM	21.83	-1.00	10.43	182.39	207.53	.00	50.27	157.26	1.82	2.08	-1.00	.02
CCB	10/10/2023	9:57 AM	21.80	-1.00	8.29	.00	3.46	3.46	.00	.00	.00	.04	.05	.02
LCS	10/10/2023	10:03 AM	21.83	-1.00	10.45	178.39	203.68	.00	50.58	153.10	1.78	2.04	-1.00	.02
MB	10/10/2023	10:09 AM	21.99	-1.00	7.99	.00	3.98	3.98	.00	.00	.00	.05	.06	.02
280-182578-a-1	10/10/2023	10:19 AM	22.14	-1.00	7.50	.00	621.37	621.37	.00	.00	.00	6.21	-1.00	.02
DU 280-182578-a-1	10/10/2023	10:29 AM	22.55	-1.00	7.58	.00	625.09	625.09	.00	.00	.00	6.25	-1.00	.02
280-182541-h-3	10/10/2023	10:47 AM	22.75	-1.00	7.63	.00	1,507.19	1,507.19	.00	.00	.00	15.07	-1.00	.02
280-182541-g-4	10/10/2023	11:01 AM	22.46	-1.00	7.83	.00	1,107.73	1,107.73	.00	.00	.00	11.08	-1.00	.02

Copyright Hinterland Software Ltd.

Run Number 2054 **Order Number** 20231009-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-182541-h-5	10/10/2023	11:21 AM	22.28	-1.00	7.80	.00	1,866.66	1,866.66	.00	.00	.00	18.67	-1.00	.02
280-182541-h-6	10/10/2023	11:33 AM	22.20	-1.00	7.37	.00	899.29	899.29	.00	.00	.00	8.99	-1.00	.02
280-182578-a-2	10/10/2023	11:42 AM	22.19	-1.00	7.21	.00	385.97	385.97	.00	.00	.00	3.86	-1.00	.02
280-182578-a-3	10/10/2023	11:55 AM	22.07	-1.00	7.51	.00	1,026.39	1,026.39	.00	.00	.00	10.26	-1.00	.02
280-182578-a-4	10/10/2023	12:03 PM	21.95	-1.00	7.67	.00	333.71	333.71	.00	.00	.00	3.34	-1.00	.02
280-182578-a-5	10/10/2023	12:11 PM	21.82	-1.00	7.36	.00	279.38	279.38	.00	.00	.00	2.79	-1.00	.02
CCV	10/10/2023	12:17 PM	21.79	-1.00	10.39	175.11	210.51	.00	70.78	139.72	1.75	2.11	-1.00	.02
CCB	10/10/2023	12:23 PM	21.86	-1.00	8.03	.00	2.96	2.96	.00	.00	.00	.04	.05	.02
280-182578-a-6	10/10/2023	12:29 PM	21.95	-1.00	5.71	.00	1.05	1.05	.00	.00	.00	.03	.05	.02
280-182581-c-1	10/10/2023	12:38 PM	22.10	-1.00	7.27	.00	551.38	551.38	.00	.00	.00	5.51	-1.00	.02
280-182581-c-2	10/10/2023	12:48 PM	22.26	-1.00	7.41	.00	559.31	559.31	.00	.00	.00	5.59	-1.00	.02
280-182581-c-3	10/10/2023	12:56 PM	22.14	-1.00	7.57	.00	389.51	389.51	.00	.00	.00	3.90	-1.00	.02
280-182582-b-1	10/10/2023	1:06 PM	21.99	-1.00	7.74	.00	533.39	533.39	.00	.00	.00	5.33	-1.00	.02
280-182603-a-2	10/10/2023	1:12 PM	21.95	-1.00	7.10	.00	129.44	129.44	.00	.00	.00	1.29	-1.00	.02
280-182603-a-3	10/10/2023	1:18 PM	21.80	-1.00	7.16	.00	123.37	123.37	.00	.00	.00	1.23	-1.00	.02
280-182603-a-4	10/10/2023	1:24 PM	21.79	-1.00	6.87	.00	162.00	162.00	.00	.00	.00	1.62	-1.00	.02
280-182603-a-5	10/10/2023	1:30 PM	21.83	-1.00	6.32	.00	1.72	1.72	.00	.00	.00	.03	.05	.02
280-182603-a-6	10/10/2023	1:35 PM	21.82	-1.00	5.66	.00	.75	.75	.00	.00	.00	.02	.04	.02
CCV	10/10/2023	1:42 PM	21.82	-1.00	10.37	177.16	204.89	.00	55.46	149.42	1.77	2.05	-1.00	.02
CCB	10/10/2023	1:48 PM	21.98	-1.00	8.08	.00	2.90	2.90	.00	.00	.00	.04	.05	.02
LCS	10/10/2023	1:55 PM	22.08	-1.00	10.37	176.74	206.70	.00	59.93	146.77	1.77	2.07	-1.00	.02
MB	10/10/2023	2:00 PM	22.42	-1.00	7.89	.00	3.54	3.54	.00	.00	.00	.05	.06	.02
280-182584-c-19	10/10/2023	2:06 PM	22.22	-1.00	5.73	.00	.73	.73	.00	.00	.00	.02	.04	.02
DU 280-182584-c-19	10/10/2023	2:11 PM	22.02	-1.00	5.80	.00	1.40	1.40	.00	.00	.00	.03	.05	.02
280-182584-c-20	10/10/2023	2:17 PM	21.98	-1.00	5.58	.00	.45	.45	.00	.00	.00	.02	.04	.02
280-182584-c-21	10/10/2023	2:22 PM	21.90	-1.00	5.69	.00	6.03	6.03	.00	.00	.00	.08	.09	.02
280-182584-c-22	10/10/2023	2:27 PM	21.87	-1.00	6.24	.00	49.81	49.81	.00	.00	.00	.50	-1.00	.02
280-182584-c-23	10/10/2023	2:32 PM	21.86	-1.00	6.29	.00	60.45	60.45	.00	.00	.00	.60	-1.00	.02
280-182584-c-24	10/10/2023	2:38 PM	21.90	-1.00	6.01	.00	10.57	10.57	.00	.00	.00	.12	.13	.02
280-182584-c-25	10/10/2023	2:43 PM	21.86	-1.00	6.27	.00	60.00	60.00	.00	.00	.00	.60	-1.00	.02

Copyright Hinterland Software Ltd.

Run Number 2054 **Order Number** 20231009-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-182605-i-2	10/10/2023	2:50 PM	21.95	-1.00	6.94	.00	258.47	258.47	.00	.00	.00	2.58	-1.00	.02
280-182611-b-1	10/10/2023	2:56 PM	22.10	-1.00	6.27	.00	111.19	111.19	.00	.00	.00	1.11	-1.00	.02
CCV	10/10/2023	3:02 PM	22.25	-1.00	10.31	174.51	205.17	.00	61.32	143.85	1.75	2.05	-1.00	.02
CCB	10/10/2023	3:08 PM	22.43	-1.00	8.03	.00	3.35	3.35	.00	.00	.00	.04	.05	.02
280-182612-e-1	10/10/2023	3:13 PM	22.13	-1.00	6.36	.00	84.90	84.90	.00	.00	.00	.85	-1.00	.02
280-182606-i-1	10/10/2023	3:31 PM	22.02	-1.00	7.79	.00	1,607.74	1,607.74	.00	.00	.00	16.08	-1.00	.02
280-182606-i-2	10/10/2023	3:55 PM	22.13	-1.00	7.87	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-182610-b-1	10/10/2023	4:09 PM	22.32	-1.00	8.55	55.16	1,090.54	980.22	110.32	.00	.55	10.91	-1.00	.02
280-182610-b-2	10/10/2023	4:20 PM	22.43	-1.00	8.53	40.62	669.84	588.60	81.24	.00	.41	6.70	-1.00	.02
280-182610-a-3	10/10/2023	4:33 PM	22.51	-1.00	8.61	63.24	1,029.89	903.41	126.48	.00	.63	10.30	-1.00	.02
280-182610-a-4	10/10/2023	4:47 PM	22.49	-1.00	8.56	56.01	1,033.23	921.21	112.02	.00	.56	10.33	-1.00	.02
280-182641-g-1	10/10/2023	5:10 PM	22.48	-1.00	8.05	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-182613-b-1	10/10/2023	5:17 PM	22.66	-1.00	7.71	.00	151.17	151.17	.00	.00	.00	1.51	-1.00	.02
280-182613-b-2	10/10/2023	5:23 PM	22.69	-1.00	6.93	.00	118.10	118.10	.00	.00	.00	1.18	-1.00	.02
CCV	10/10/2023	5:29 PM	22.90	-1.00	10.25	180.33	210.31	.00	59.96	150.35	1.80	2.10	-1.00	.02
CCB	10/10/2023	5:35 PM	22.66	-1.00	7.95	.00	6.43	6.43	.00	.00	.00	.07	.07	.02
LCS	10/10/2023	5:41 PM	22.46	-1.00	10.32	192.21	215.14	.00	45.87	169.27	1.92	2.15	-1.00	.02
MB	10/10/2023	5:47 PM	22.42	-1.00	8.09	.00	9.60	9.60	.00	.00	.00	.10	.11	.02
280-182613-b-3	10/10/2023	5:52 PM	22.37	-1.00	6.70	.00	117.92	117.92	.00	.00	.00	1.18	-1.00	.02
DU 280-182613-b-3	10/10/2023	5:58 PM	22.28	-1.00	6.80	.00	116.86	116.86	.00	.00	.00	1.17	-1.00	.02
280-182613-b-4	10/10/2023	6:04 PM	22.20	-1.00	7.11	.00	132.54	132.54	.00	.00	.00	1.33	-1.00	.02
280-182613-b-5	10/10/2023	6:09 PM	22.17	-1.00	6.77	.00	59.32	59.32	.00	.00	.00	.59	-1.00	.02
280-182613-b-6	10/10/2023	6:14 PM	22.17	-1.00	6.91	.00	91.38	91.38	.00	.00	.00	.91	-1.00	.02
280-182613-b-7	10/10/2023	6:20 PM	22.19	-1.00	6.73	.00	57.20	57.20	.00	.00	.00	.57	-1.00	.02
280-182613-b-8	10/10/2023	6:25 PM	22.25	-1.00	6.80	.00	95.68	95.68	.00	.00	.00	.96	-1.00	.02
280-182613-b-9	10/10/2023	6:30 PM	22.35	-1.00	6.85	.00	87.72	87.72	.00	.00	.00	.88	-1.00	.02
280-182613-b-10	10/10/2023	6:36 PM	22.54	-1.00	6.61	.00	48.84	48.84	.00	.00	.00	.49	-1.00	.02
280-182613-b-11	10/10/2023	6:41 PM	22.37	-1.00	6.79	.00	62.86	62.86	.00	.00	.00	.63	-1.00	.02
CCV	10/10/2023	6:48 PM	22.28	-1.00	10.36	174.96	203.78	.00	57.64	146.14	1.75	2.04	-1.00	.02
CCB	10/10/2023	6:53 PM	22.23	-1.00	7.87	.00	4.98	4.98	.00	.00	.00	.06	.07	.02

Copyright Hinterland Software Ltd.

Run Number 2054 **Order Number** 20231009-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-182615-f-1	10/10/2023	7:00 PM	22.20	-1.00	7.38	.00	254.96	254.96	.00	.00	.00	2.55	-1.00	.02
280-182615-f-2	10/10/2023	7:07 PM	22.14	-1.00	7.56	.00	260.04	260.04	.00	.00	.00	2.60	-1.00	.02
280-182615-e-3	10/10/2023	7:14 PM	22.14	-1.00	7.57	.00	239.61	239.61	.00	.00	.00	2.40	-1.00	.02
280-182615-f-4	10/10/2023	7:21 PM	22.14	-1.00	7.65	.00	272.98	272.98	.00	.00	.00	2.73	-1.00	.02
280-182615-e-5	10/10/2023	7:28 PM	22.13	-1.00	7.66	.00	224.41	224.41	.00	.00	.00	2.24	-1.00	.02
280-182615-b-6	10/10/2023	7:36 PM	22.17	-1.00	7.51	.00	344.88	344.88	.00	.00	.00	3.45	-1.00	.02
280-182617-a-2	10/10/2023	7:52 PM	22.26	-1.00	7.87	.00	1,337.54	1,337.54	.00	.00	.00	13.38	-1.00	.02
280-182617-a-3	10/10/2023	8:16 PM	22.63	-1.00	7.86	.00	.00	.00	.00	.00	.00	.00	.00	.02
280-182625-a-1	10/10/2023	8:22 PM	22.49	-1.00	7.52	.00	65.17	65.17	.00	.00	.00	.65	-1.00	.02
280-182625-a-2	10/10/2023	8:27 PM	22.25	-1.00	6.33	.00	45.71	45.71	.00	.00	.00	.46	-1.00	.02
CCV	10/10/2023	8:34 PM	22.10	-1.00	10.31	179.26	206.57	.00	54.64	151.94	1.79	2.07	-1.00	.02
CCB	10/10/2023	8:39 PM	22.02	-1.00	7.95	.00	6.86	6.86	.00	.00	.00	.07	.08	.02
LCS	10/10/2023	8:45 PM	21.95	-1.00	10.25	180.51	208.48	.00	55.94	152.54	1.81	2.08	-1.00	.02
MB	10/10/2023	8:51 PM	21.90	-1.00	7.77	.00	3.40	3.40	.00	.00	.00	.04	.05	.02
280-182626-b-1	10/10/2023	8:57 PM	21.87	-1.00	7.35	.00	142.87	142.87	.00	.00	.00	1.43	-1.00	.02
DU 280-182626-b-1	10/10/2023	9:04 PM	21.86	-1.00	7.57	.00	143.47	143.47	.00	.00	.00	1.43	-1.00	.02
280-182626-b-2	10/10/2023	9:10 PM	21.82	-1.00	7.70	.00	144.40	144.40	.00	.00	.00	1.44	-1.00	.02
280-182626-b-3	10/10/2023	9:16 PM	21.85	-1.00	7.77	.00	141.25	141.25	.00	.00	.00	1.41	-1.00	.02
280-182635-d-1	10/10/2023	9:25 PM	21.86	-1.00	7.84	.00	445.48	445.48	.00	.00	.00	4.45	-1.00	.02
280-182635-c-2	10/10/2023	9:30 PM	22.19	-1.00	6.58	.00	2.42	2.42	.00	.00	.00	.04	.06	.02
280-182635-c-3	10/10/2023	9:39 PM	22.08	-1.00	7.91	.00	446.96	446.96	.00	.00	.00	4.47	-1.00	.02
280-182635-d-4	10/10/2023	9:50 PM	22.03	-1.00	7.86	.00	778.00	778.00	.00	.00	.00	7.78	-1.00	.02
280-182635-c-5	10/10/2023	9:59 PM	22.02	-1.00	7.88	.00	440.74	440.74	.00	.00	.00	4.41	-1.00	.02
280-182635-c-6	10/10/2023	10:08 PM	21.98	-1.00	7.91	.00	416.04	416.04	.00	.00	.00	4.16	-1.00	.02
CCV	10/10/2023	10:15 PM	21.90	-1.00	10.26	184.61	211.10	.00	52.98	158.12	1.85	2.11	-1.00	.02
CCB	10/10/2023	10:20 PM	21.86	-1.00	7.96	.00	2.50	2.50	.00	.00	.00	.04	.05	.02
280-182636-c-1	10/10/2023	10:30 PM	21.80	-1.00	7.78	.00	516.28	516.28	.00	.00	.00	5.16	-1.00	.02
280-182636-c-2	10/10/2023	10:36 PM	21.79	-1.00	7.29	.00	140.42	140.42	.00	.00	.00	1.40	-1.00	.02
280-182636-c-3	10/10/2023	10:44 PM	21.73	-1.00	7.76	.00	417.06	417.06	.00	.00	.00	4.17	-1.00	.02
CCV	10/10/2023	10:51 PM	21.69	-1.00	10.28	184.70	210.07	.00	50.75	159.33	1.85	2.10	-1.00	.02

Copyright Hinterland Software Ltd.

Run Number 2054 **Order Number** 20231009-2

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
CCB	10/10/2023	10:57 PM	21.98	-1.00	7.97	.00	2.87	2.87	.00	.00	.00	.04	.05	.02

Copyright Hinterland Software Ltd.

Shipping and Receiving Documents

Chain of Custody Record

leidos

Page 1 of 9

COC No.: RVAAP-315-TA

Date: 10/4/23

280-182443 Chain of Custody

Name Leidos
Address. 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Fall 2023
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name) Joe Krawetz

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Requested Parameters: VOCs (1)(B)	Expanded Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	WBGmw-020-230901-GW			10/4/23	0957	W		2		2	

JK 10/4/23

Relinquished by
Signature: Charles Spurr
Printed Name
Company: Leidos
Date: 10/4/23
Time: 1730

Received by
Signature: Dylan Padgett
Printed Name
Company: EETDE TEMP 1.4°C 0.1°C. 1.0°C
Date: 10.5.23 CF0.3 IR#0#0
Time: 10.00

Relinquished by
Signature
Printed Name
Company
Date
Time

Received by
Signature
Printed Name
Company
Date
Time

Notes:
Total Number of Containers: 2

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C

1 SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 9012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B

Notes:

Shipment Method: Courier

FedEx

8174 6109 4736
8174 6109 4747
8174 6109 4817

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

leidos

Chain of Custody Record

COC No.: RVAAP-396-TA

Date: 10/4/23

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Fall 2023
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)

Matt S Rechenberger Matt Rechenberger

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Expanded Explosives (6)(A)	Sulfide (9)(F)	Nitrate/Nitrite/Sulfate (10)(A)	Alkalinity (14)(A)	TOC (13)(E)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	WBGmw-009-230901-GW			10/4/23	1008	W	2	1	1		1		5	

Requested Parameters

MSR 10/4/23

Relinquished by	Date	Received by	Date
Signature	10/4/23	Signature	10.5.23
Charles Spurr	Time 1730	Dylan Padgett	Time 1000
Printed Name		Printed Name	
Leidos		EETDEN	
Company		Company	
Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

Notes: Total Number of Containers: 5

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C

1. SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 8012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B

Notes:

Shipment Method: Courier

Temperature Blank

Lab:

Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

White: Laboratory Pink: Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

Chain of Custody Record

leidos

COC No.: RVAAP-~~39~~7-TA

Date: 10/4/~~25~~-23 cl 1654

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Fall 2023
Job/P.O. No.: P010216426
Sampler (Signature) Clee (Printed Name) Katie Lee

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Expanded Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	WBGmw-014-230901-GW			10/4/23	1025	W	2		2	

Requested Parameters

02 10/4/23

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2
Signature: Clee	10/4/23	Signature: Dylan Padgett	10.5.23	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C
Printed Name: Charles Spurr	Time: 1730	Printed Name: EETDEN	Time: 1000	1. SW 8260B Notes: 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B 6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B
Company: Leidos		Company:		
Relinquished by	Date	Received by	Date	
Signature		Signature		
Printed Name	Time	Printed Name	Time	
Company		Company		

Shipment Method: Courier

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White: Laboratory Pink Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

Chain of Custody Record

leidos

Page 4 of 9

COC No.: RVAAP-398TA

Date: 10/4/23

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Fall 2023
Job/P.O. No.: P010216426
Sampler (Signature) [signature] (Printed Name) Joe Kovetz

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Requested Parameters

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Expanded Explosives (6)(A)	Sulfide (9)(F)	Nitrate/Nitrite/Sulfate (10)(A)	Alkalinity (14)(A)	TOC (13)(E)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	WBGmw-006-230901-GW			10/4/23	1120	W	2	1	1		1		5	

JK 10/4/23

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 5	Shipment Method: Courier
[signature]	10/4/23	[signature]	10.5.23	A Cool, 4C; B HCl, pH<2, Cool, 4C; C. HNO3, pH<2, Cool, 4C; D. NaOH, pH>12, Cool 4C; E H2SO4, pH<2, Cool, 4C; F NaOH/Zn, pH>12, Cool 4C	
Signature		Signature			
Charles Spicer	Time 1730	Dylan Padgett	Time 1000	1. SW 8260B; 2. SW 8270D; 3 SW 8270D SIM; 4. SW 8082A; 5. SW 8081B; 6. SW 8330; 7. SW 6010/6020/7470; 8. SW 9012B; 9. SW 9034; 10. SW 9056/9056A; 11. SW 350.1; 12. EPA 353.2; 13. SW 9060A; 14. SM2320B	
Printed Name		Printed Name		Notes:	
Leidos		EETDEN			
Company		Company			
Relinquished by	Date	Received by	Date		Temperature Blank
Signature		Signature			
	Time		Time		Lab.
Printed Name		Printed Name			Leidos 8866 Commons Drive Twinsburg, OH 44087 (330) 405-5802
Company		Company			

leidos

Chain of Custody Record

COC No.: RVAAP-399-TA

Date: 10/4/23

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Fall 2023
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)

Chris McFarlane

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Requested Parameters

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Expanded Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	WBGmw-016-230901-GW	-	-	10/4/23	1105	W	2		2	

on 10/4/23

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2	Shipment Method: Courier
Signature	10/4/23	Signature	10.5.23	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C	
Charles Spurr	Time	Dylan Padgett	Time	1. SW 8260B Notes: 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B 6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B	
Printed Name	1730	Printed Name	1000		
Leidos		EETDEN			
Company		Company			
Relinquished by	Date	Received by	Date		Temperature Blank
Signature		Signature			Lab:
Printed Name	Time	Printed Name	Time		Leidos 8866 Commons Drive Twinsburg, OH 44087 (330) 405-5802
Company		Company			

Leidos

White: Laboratory Pink: Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

leidos

Chain of Custody Record

Page 6 of 9

COC No.: RVAAP-400TA

Date: 10/4/23

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Fall 2023
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)

Matt Shelby — Matt Rechenberg

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Requested Parameters

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Expanded Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	WBGmw-021-230901-GW			10/4/23	1240	W	2		2	

MSR 10/4/23

Relinquished by	Date	Received by	Date
Signature: Charles Spurr	10/4/23	Signature: Avian Padgett	10.5.23
Printed Name: Charles Spurr	Time: 1730	Printed Name: Avian Padgett	Time: 1000
Company: Leidos		Company: EETDEN	
Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

Notes: Total Number of Containers: 2

A. Cool, 4C
B. HCl, pH<2, Cool, 4C
C. HNO3, pH<2, Cool, 4C
D. NaOH, pH>12, Cool 4C

1. SW 8260B
2. SW 8270D
3. SW 8270D SIM
4. SW 8082A
5. SW 8081B
6. SW 8330
7. SW 6010/6020/7470
8. SW 9012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B

Notes:

Shipment Method: Courier

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White: Laboratory Pink. Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

leidos

Chain of Custody Record

COC No.: RVAAP-40-TA

Date: 10/4/23

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Fall 2023
Job/P.O. No.: P010216426
Sampler (Signature) Joe Kwiatz (Printed Name) Joe Kwiatz

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Requested Parameters: Expanded Explosives (6)(A)	Sulfide (9)(F)	Nitrate/Nitrite/Sulfate (10)(A)	Alkalinity (14)(A)	TOC (13)(E)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	WBGmw-018-230901-GW	—	—	10/4/23	1430	W	2	1	1		1		5	
	WBGMW-RB-018-2023	—	-	10/4/23	1600	W	2	1	1		1		5	jmp 10/4/23 (-) for clarity

10/4/23

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 10	Shipment Method: Courier
Signature	10/4/23	Signature	10/5/23	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C	
Printed Name: Charles Spurr	Time: 1730	Printed Name: Nathan Little	Time: 1000	1. SW 8260B Notes: 2. SW 8270D 3 SW 8270D SIM 4. SW 8082A 5. SW 8081B 6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A 11. SW 6860 12. EPA 353 2 13. SW 7196 14. SM2320B	
Company: Leidos		Company: EEDEN			
Relinquished by	Date	Received by	Date		Temperature Blank
Signature		Signature			Lab:
Printed Name	Time	Printed Name	Time		Leidos 8866 Commons Drive Twinsburg, OH 44087 (330) 405-5802
Company		Company			

leidos

Chain of Custody Record

COC No.: RVAAP-401-TA

Date: 10/4/23

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Fall 2023
Job/P.O. No.: P010216426
Sampler (Signature) Joe Kwiatkowski (Printed Name) Joe Kwiatkowski

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Expanded Explosives (6)(A)	Sulfide (9)(F)	Nitrate/Nitrite/Sulfate (10)(A)	Alkalinity (14)(A)	TOC (13)(E)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	WBGmw-018-230901-GW	—	—	10/4/23	1730	W	2	1	1		1		5	
	WBGMW-RB-018-2023	—	-	10/4/23	1600	W	2	1	1		1		5	

Requested Parameters

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 10	Shipment Method: Courier
Signature	10/4/23	Signature	10.5.23	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C	
Printed Name: Charles Spencer	Time: 1730	Printed Name: Dylan Padgett	Time: 1000	1. SW 8260B Notes: 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B	
Company: Leidos		Company: EETDEN			
Relinquished by	Date	Received by	Date	6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A	Temperature Blank
Signature	Time	Signature	Time	11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B	Lab: Leidos 8866 Commons Drive Twinsburg, OH 44087 (330) 405-5802
Printed Name		Printed Name			
Company		Company			

leidos

Chain of Custody Record

COC No.: RVAAP-402-TA

Date: 10/4/23

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Fall 2023
Job/P.O. No.: P010216426
Sampler (Signature) (Printed Name)

Matt Rechenberg

Requested Parameters

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Expanded Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	WBGmw-017-230901-GW	-	-	10/4/23	1600	W	2		2	

AKR 10/4/23

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 2	Shipment Method: Courier
Signature	10/4/23	Signature	10.5.23	A. Cool, 4C B. HCl, pH<2, Cool, 4C C. HNO3, pH<2, Cool, 4C D. NaOH, pH>12, Cool 4C	
Printed Name: Charlie Spurr	Time: 1730	Printed Name: Dylan Padgett	Time: 1000	1. SW 8260B Notes: 2. SW 8270D 3. SW 8270D SIM 4. SW 8082A 5. SW 8081B	
Company: Leidos		Company: EETDEN		6. SW 8330 7. SW 6010/6020/7470 8. SW 9012B 9. SW 9034 10. SW 9056/9056A	
Relinquished by	Date	Received by	Date	11. SW 6860 12. EPA 353.2 13. SW 7196 14. SM2320B	Temperature Blank
Signature		Signature			Lab:
Printed Name	Time	Printed Name	Time		Leidos 8866 Commons Drive Twinsburg, OH 44087 (330) 405-5802
Company		Company			

Leidos White: Laboratory Pink: Project Manager Yellow: Project QAO Goldenrod: Field Project Manager

leidos

Chain of Custody Record

Page 9 of 9

COC No.: RVAAP-403TA

Date: 10/4/23

Name Leidos
Address: 8866 Commons Blvd. Suite 201, Twinsburg, OH 44087
Phone Number: (330) 405-5802
Project Manager: Jed Thomas
Project: RVAAP FWGW Sampling Event Fall 2023
Job/P O. No. P010216426
Sampler (Signature) [signature] (Printed Name) Katie Lee

Laboratory Name: TA- Denver
Address: 4955 Yarrow Street
Arvada, CO 80002
Phone: 303-736-0107
Contact: Patrick McEntee

Laboratory No	Sample ID	Site Type	Depth	Date	Time	Matrix	Requested Parameters: Expanded Explosives (6)(A)	Temperature Blank	Total Number of Containers	OBSERVATIONS, COMMENTS SPECIAL INSTRUCTIONS
	FBQmw-175-230901-GW			10/4/23	1525	W	2		2	
	FBQmw-175-230902-GW			10/4/23	1525	W	2		2	

CE 10/4/23

Relinquished by	Date	Received by	Date	Notes: Total Number of Containers: 4
Signature: [signature]	10/4/23	Signature: [signature]	10.5.23	A. Cool, 4C; E. NaOH/Zn Acetate, pH>9, Cool 4C
Printed Name: Charles Spurr	Time: 1730	Printed Name: Dylan Padgett	Time: 1000	B. HCl, pH<2, Cool, 4C
Company: Leidos		Company: EETDEN		C. HNO3, pH<2, Cool, 4C
				D. NaOH, pH>12, Cool 4C

Relinquished by	Date	Received by	Date
Signature		Signature	
Printed Name	Time	Printed Name	Time
Company		Company	

1 SW 8260B
2 SW 8270D
3 SW 8270D SIM
4 SW 8082A
5 SW 8081B
6 SW 8330
7 SW 6010/6020/7470
8 SW 9012B
9. SW 9034
10. SW 9056/9056A
11. SW 6860
12. EPA 353.2
13. SW 7196
14. SM2320B

Notes:

Shipment Method: Courier

Temperature Blank

Lab:
Leidos
8866 Commons Drive
Twinsburg, OH 44087
(330) 405-5802

Leidos

White Laboratory Pink Project Manager Yellow Project QAO Goldenrod Field Project Manager

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 280-182443-1

Login Number: 182443
List Number: 1
Creator: Little, Matthew L

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	